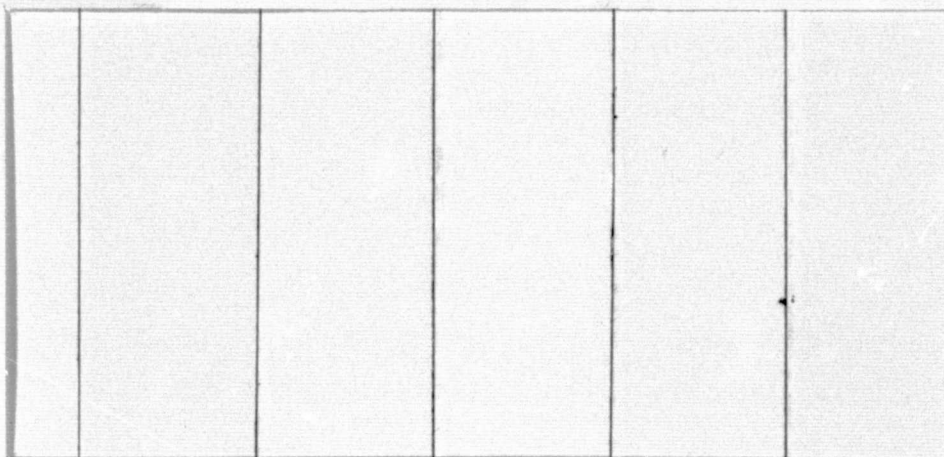


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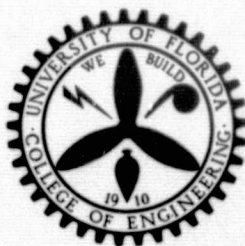
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**ENGINEERING AND INDUSTRIAL EXPERIMENT STATION**

**College of Engineering**

**University of Florida**

**Gainesville**

EVALUATION OF ATOMIC CONSTANTS

FOR

OPTICAL RADIATION

Final Report (Vol. II)

December 1974

EVALUATION OF ATOMIC CONSTANTS  
FOR  
OPTICAL RADIATION

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December 1974

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## PREFACE

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## **APPENDIX B**

### **MATRIX ELEMENTS**

## MATRIX ELEMENTS

The results in this appendix were generated along with the results in Appendix A. However, the large size of this appendix, plus the need for fewer copies of the matrix elements tables, has resulted in Appendix B being published as a separate volume.

The organization and symbols used for headings in the following table are basically conventional nomenclature, with some changes as dictated by the output equipment.

The first page for each element contains the element name, its atomic number, and its ionic state. The next few lines contain the designation and series limit for each parent configuration. As in Appendix A, an asterick by the series limit indicates the approximation was used.

The next portion of the table contains information on all of the terms available to the program. The TERM NO. is a counting index used by the program. The DESIGNATION column gives the parent configuration and the designation for the individual terms. The equivalent between the computer printout and the conventional symbolism is (using Helium Term No. 2 as an example):

$$2S3S1.0 = 2s^3s_1$$

The ENERGY LEVELS are the energy levels of the various terms.<sup>3</sup>

The matrix element subtables are ordered by the sequence number (SEQ. NUM.). These numbers index back to the line tables in Appendix A, and represent the initial (I) and final (F) levels of the transitions. While many lines originate or terminate at the same level, each level in the line tables is listed only once in Appendix B. Each state within a level that is used in Appendix A is given a sequence number, and ordered by ascending energy. This state will be called the reference state when comparing it to other states.

The first line of information within each sequence number subtable contains the following information:

- PR - The configuration of the core or parent
- EE - If the reference state involves equivalent electrons, an asterisk is printed.
- DESIG - The designation for the reference state, with the same computer output conventions as explained above.
- LEVEL - The energy level of the reference state
- N EFF - The effective principal quantum number  $n^*$
- S. LIMIT - The energy of the series limit
- RAA\*\*2 - The value of the matrix element for the reference state interacting with itself. Used with the value in the next column.
- S. RAA'\*\*2 - The sum of all of the dipole matrix elements listed in the subtable. The closer this value matches RAA\*\*2, the greater confidence one has that all of the important transitions affecting line broadening are included and that the numerical errors are minimal.

The next heading "INTERACTIONS--DIPOLE-" starts the part of the subtable containing the dipole interaction information. These states meet all of the selection rules for interaction with the reference state. The columns of information are:

- DESIGNATION - Using the above explained computer output conventions, the designation of the parent and the state (that the reference state can interact with) is given.
- W - The frequency of a transition line in radians per sec.
- RAA'\*\*2 - The matrix element
- F - The oscillator strength

W L VAC - The wave length in a vacuum.

Where reference states can experience quadrupole interactions with other states for a  $\Delta L = 0$  case, these matrix elements are summed and printed under the heading "INTERACTIONS--QUADRUPOLE-." Also given is the largest frequency of any of the quadrupole interactions.

HELIUM ----- 2 ----- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	198395.000

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2S) 1S1S0.0	0.0		
2	(2S) 2S1S1.0	159850.31		
3	(2S) 2S1S0.0	166271.69		
4	(2S) 2P3P0.0	169082.19	169081.19	169081.12
5	(2S) 2P1P1.0	171129.12		
6	(2S) 3S3S1.0	183231.06		
7	(2S) 3S1S0.0	184859.06		
8	(2S) 3P3P0.0	185559.25	185559.06	185558.94
9	(2S) 3D3D1.0	186095.87	186095.67	186095.87
10	(2S) 3D1D2.0	186099.25		
11	(2S) 3P1P1.0	186203.62		
12	(2S) 4S3S1.0	190292.44		
13	(2S) 4S1S0.0	190934.50		
14	(2S) 4P3P0.0	191211.44	191211.44	191211.44
15	(2S) 4D3D1.0	191438.81	191438.81	191438.81
16	(2S) 4D1D2.0	191446.69		
17	(2S) 4F3F2.0	191446.62	191446.62	191446.62
18	(2S) 4F1F3.0	191447.25		
19	(2S) 4P1P1.0	191486.94		
20	(2S) 5S3S1.0	193341.31		
21	(2S) 5S1S0.0	193657.75		
22	(2S) 5P3P0.0	193795.06	193795.06	193795.06
23	(2S) 5D3D1.0	193911.50	193911.50	193911.50
24	(2S) 5D1D2.0	193912.56		
25	(2S) 5F1F3.0	193914.31		
26	(2S) 5F3F2.0	193915.81	193915.81	193915.81
27	(2S) 5P1P1.0	193936.75		
28	(2S) 6S3S1.0	194930.44		
29	(2S) 6S1S0.0	195109.19		
30	(2S) 6P3P0.0	195187.19	195187.19	195187.19
31	(2S) 6D3D1.0	195254.37	195254.37	195254.37
32	(2S) 6D1D2.0	195255.00		
33	(2S) 6F1F3.0	195256.69		
34	(2S) 6F3F2.0	195256.81	195256.81	195256.81
35	(2S) 6P1P1.0	195269.19		
36	(2S) 7S3S1.0	195462.62		
37	(2S) 7S1S0.0	195973.19		
38	(2S) 7P3P0.0	196021.75	196021.75	196021.75
39	(2S) 7D3D1.0	196064.00	196064.00	196064.00
40	(2S) 7D1D2.0	196064.31		
41	(2S) 7F1F3.0	196065.37		
42	(2S) 7F3F2.0	196065.50	196065.50	196065.50
43	(2S) 7P1P1.0	196073.44		
44	(2S) 8P1P1.0	196595.56		
45	(2S) 10P1P1.0	197210.44		

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Table 1. Helium

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		25351.C	159850.312	1.689	198305.000	21.769	20.667

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	2P3P1.0	0.17390E+16	0.21603E+01	0.60564E-01	0.1083204E+C5
(25)	2P3P1.0	0.17388E+16	0.64809E+01	0.18167E+00	0.1083321E+C5
(25)	2P3P2.0	0.17388E+16	0.10802E+02	0.30279E+00	0.1083328E+C5
(25)	3P3P1.0	0.48427E+16	0.85359E-01	0.66641E-02	0.3887698E+C4
(25)	3P3P1.0	0.48426E+16	0.25607E+00	0.19992E-01	0.3889726E+C4
(25)	3P3P2.0	0.48426E+16	0.42679E+00	0.13320E-01	0.3889745E+C4
(25)	4P3P1.0	0.59073E+16	0.27739E-01	0.26417E-02	0.3188661E+C4
(25)	4P3P1.0	0.59073E+16	0.83216E-01	0.79250E-02	0.3188661E+C4
(25)	4P3P2.0	0.59073E+16	0.13873E+00	0.13209E-01	0.3188661E+C4
(25)	5P3P1.0	0.63940E+16	0.12364E-01	0.12745E-02	0.2945964E+C4
(25)	5P3P1.0	0.63940E+16	0.37090E-01	0.38233E-02	0.2945964E+C4
(25)	5P3P2.0	0.63940E+16	0.61818E-01	0.63723E-02	0.2945964E+C4
(25)	6P3P1.0	0.66562E+16	0.66221E-02	0.71061E-03	0.2829905E+C4
(25)	6P3P1.0	0.66562E+16	0.19866E-01	0.21318E-02	0.2829905E+C4
(25)	6P3P2.0	0.66562E+16	0.33110E-01	0.35530E-02	0.2829905E+C4
(25)	7P3P1.0	0.68134E+16	0.39791E-02	0.43703E-03	0.2764612E+C4
(25)	7P3P1.0	0.68134E+16	0.11937E-01	0.13112E-02	0.2764612E+C4
(25)	7P3P2.0	0.68134E+16	0.19895E-01	0.21854E-02	0.2764612E+C4

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		25150.0	166271.687	1.850	198305.000	31.022	29.869

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	2P1P1.0	0.91407E+15	0.25205E+02	0.37179E+00	0.2058698E+C5
(25)	3P1P1.0	0.37545E+16	0.24667E+C1	0.14930E+00	0.5017070E+C4
(25)	4P1P1.0	0.47497E+16	0.63600E+00	0.48699E-01	0.3965854E+C4
(25)	5P1P1.0	0.52111E+16	0.26427E+C0	0.22201E-01	0.3514667E+C4
(25)	6P1P1.0	0.54621E+16	0.13732E+00	0.12092E-01	0.3448573E+C4
(25)	7P1P1.0	0.56136E+16	0.81187E-01	0.73474E-02	0.3355508E+C4
(25)	8P1P1.0	0.57120E+16	0.52355E-01	0.48211E-02	0.3297731E+C4
(25)	10P1P1.0	0.58278E+16	0.25579E-01	0.24032E-02	0.3232193E+C4

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## 3 - SFQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		2P3D0.0	169082.187	1.937	198705.000	25.823	23.162

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	253S1.0	0.17390E+15	0.64810E+01	0.60564E-01	0.1083204E+05
(25)	353S1.0	0.26652E+16	0.15843E+01	0.68072E-01	0.7057699E+04
(25)	303D1.0	0.32043E+16	0.11934E+02	0.61659E+00	0.5877617E+04
(25)	453S1.0	0.39953E+16	0.15738E+00	0.10137E-01	0.4714699E+04
(25)	403D1.0	0.42112E+16	0.18287E+01	0.12415E+00	0.4472945E+04
(25)	553S1.0	0.45596E+16	0.48582E-01	0.35789E-02	0.4122160E+04
(25)	503D1.0	0.46770E+16	0.62966E+00	0.47475E-01	0.4027493E+04
(25)	653S1.0	0.48689E+16	0.21903E-01	0.17192E-02	0.3868734E+04
(25)	603D1.0	0.49299E+16	0.29788E+00	0.23674E-01	0.3820850E+04
(25)	753S1.0	0.50445E+16	0.11934E-01	0.97052E-03	0.3734069E+04
(25)	703D1.0	0.50824E+16	0.16683E+00	0.13669E-01	0.3706200E+04

## 4 - SFQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		2P1P1.0	171129.125	2.009	198305.000	30.631	25.508

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	151S0.0	0.32235E+17	0.81163E-01	0.12653E+00	0.5843540E+03
(25)	251S0.0	0.91497E+15	0.84016E+01	0.37179E+00	0.2058608E+05
(25)	351S0.0	0.25862E+16	0.11520E+01	0.48031E-01	0.7283352E+04
(25)	301D2.0	0.29198E+15	0.15625E+02	0.71030E+00	0.6679969E+04
(25)	451S0.0	0.37306E+16	0.14257E+00	0.85744E-02	0.5049133E+04
(25)	401D2.0	0.38267E+16	0.19542E+01	0.12053E+00	0.4923301E+04
(25)	551S0.0	0.42436E+16	0.46944E-01	0.32115E-02	0.4438797E+04
(25)	501D2.0	0.42916E+16	0.62707E+00	0.43385E-01	0.4389152E+04
(25)	651S0.0	0.45170E+16	0.21859E-01	0.15917E-02	0.4170124E+04
(25)	601D2.0	0.45445E+16	0.28674E+00	0.21007E-01	0.4144920E+04
(25)	751S0.0	0.46798E+16	0.12155E-01	0.91704E-03	0.4025106E+04
(25)	701D2.0	0.46969E+16	0.15744E+00	0.11921E-01	0.4010397E+04

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3S751.0	183231.062	2.697	198305.000	136.000	133.938

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(2S)	2P3P1.0	0.26652E+16	0.52817E+00	0.68072E-01	0.7057699E+04
(2S)	2P3P1.0	0.26653E+16	0.15843E+01	0.68075E-01	0.7067199E+04
(2S)	2P3P2.0	0.26654E+16	0.26405E+01	0.68075E-01	0.7057168E+04
(2S)	3P3P0.0	0.43855E+15	0.13993E+02	0.98934E-01	0.4295186E+05
(2S)	3P3P1.0	0.43851E+15	0.41979E+02	0.29677E+00	0.4295532E+05
(2S)	3P3P2.0	0.43849E+15	0.69967E+02	0.49460E+00	0.4295763E+05
(2S)	4P3P0.0	0.15032E+16	0.22643E+00	0.54873E-02	0.1253074E+05
(2S)	4P3P1.0	0.15032E+16	0.67927E+00	0.16462E-01	0.1253074E+05
(2S)	4P3P2.0	0.15032E+16	0.11321E+01	0.27435E-01	0.1253074E+05
(2S)	5P3P0.0	0.19899E+16	0.78129E-01	0.25064E-02	0.9466109E+04
(2S)	5P3P1.0	0.19899E+16	0.23438E+00	0.75189E-02	0.9466109E+04
(2S)	5P3P2.0	0.19899E+16	0.39064E+00	0.12532E-01	0.9466109E+04
(2S)	6P3P0.0	0.22521E+16	0.36127E-01	0.13117E-02	0.8363910E+04
(2S)	6P3P1.0	0.22521E+16	0.10838E+00	0.39350E-02	0.8353910E+04
(2S)	6P3P2.0	0.22521E+16	0.18064E+00	0.65584E-02	0.8363910E+04
(2S)	7P3P0.0	0.24093E+16	0.19951E-01	0.77494E-03	0.7818187E+04
(2S)	7P3P1.0	0.24093E+16	0.59852E-01	0.23248E-02	0.7818187E+04
(2S)	7P3P2.0	0.24093E+16	0.99756E-01	0.38747E-02	0.7818187E+04

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3S150.0	184859.062	2.856	198305.000	170.426	165.650

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(2S)	2P1P1.0	0.25862E+15	0.34559E+01	0.48031E-01	0.7283352E+04
(2S)	3P1P1.0	0.25327E+15	0.15269E+03	0.62345E+00	0.7437362E+05
(2S)	4P1P1.0	0.12495E+16	0.71429E+01	0.14376E+00	0.1508779E+05
(2S)	5P1P1.0	0.17099E+15	0.18337E+01	0.50548E-01	0.1101602E+05
(2S)	6P1P1.0	0.19609E+16	0.76802E+00	0.24273E-01	0.9606031E+04
(2S)	7P1P1.0	0.21124E+16	0.40389E+00	0.13754E-01	0.8917125E+04
(2S)	8P1P1.0	0.22107E+16	0.24280E+00	0.86534E-02	0.8520426E+04
(2S)	10P1P1.0	0.23266E+16	0.10950E+00	0.41072E-02	0.7996262E+04

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## 7 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)	3P3D0.0	185559.250	2.933	198305.000	163.598	156.946

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	# L VAC
(25)	2S3S1.0	0.48427E+16	0.25609E+00	0.66641E-02	0.3889698E+04
(25)	3S3S1.0	0.43855E+15	0.41980E+02	0.98934E-01	0.4295186E+05
(25)	3D3D1.0	0.10108E+15	0.68895E+02	0.11227E+00	0.1863498E+06
(25)	4S3S1.0	0.89157E+15	0.10963E+02	0.14464E+00	0.2112741E+05
(25)	4D3D1.0	0.11075E+16	0.26792E+02	0.47836E+00	0.1700807E+05
(25)	5S3S1.0	0.14559E+15	0.94666E+00	0.22371E-01	0.1295006E+05
(25)	5D3D1.0	0.15733E+16	0.49147E+01	0.12465E+00	0.1197282E+05
(25)	6S3S1.0	0.17652E+15	0.28667E+00	0.81581E-02	0.1067100E+05
(25)	6D3D1.0	0.19262E+15	0.18006E+01	0.53012E-01	0.1031446E+05
(25)	7S3S1.0	0.19408E+16	0.12885E+00	0.40314E-02	0.9705555E+04
(25)	7D3D1.0	0.19787E+16	0.88205E+00	0.28137E-01	0.9519500E+04

## 8 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)	3D3D1.0	186095.875	2.997	198305.000	125.400	122.097

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	# L VAC
(25)	2P3P0.0	0.32049E+16	0.39740E+01	0.61659E+00	0.5877617E+04
(25)	2P3P1.0	0.32050E+16	0.29835E+01	0.15415E+00	0.5877273E+04
(25)	2P3P2.0	0.32050E+16	0.19890E+00	0.61663E-02	0.5877250E+04
(25)	3P3P0.0	0.10108E+15	0.22965E+02	0.11227E+00	0.1863498E+06
(25)	3P3P1.0	0.10112E+15	0.17224E+02	0.28077E-01	0.1852847E+06
(25)	3P3P2.0	0.10114E+15	0.11483E+01	0.11234E-02	0.1862414E+06
(25)	4P3P0.0	0.74359E+15	0.79205E+00	0.12304E-01	0.1954819E+05
(25)	4P3P1.0	0.74359E+15	0.59413E+00	0.92280E-02	0.1954819E+05
(25)	4P3P2.0	0.74359E+15	0.39603E-01	0.61521E-03	0.1954819E+05
(25)	4F3F2.0	0.14079E+16	0.62500E+02	0.10155E+01	0.1868897E+05
(25)	5P3P0.0	0.14503E+16	0.97925E-01	0.22895E-02	0.1298838E+05
(25)	5P3P1.0	0.14503E+16	0.73443E-01	0.17171E-02	0.1298838E+05
(25)	5P3P2.0	0.14503E+16	0.48963E-02	0.11448E-03	0.1298838E+05
(25)	6F3F2.0	0.14730E+16	0.66202E+01	0.15721E+00	0.1278782E+05
(25)	6P3P0.0	0.17125E+16	0.30971E-01	0.85505E-03	0.1099951E+05
(25)	6P3P1.0	0.17125E+16	0.23228E-01	0.64128E-03	0.1099951E+05
(25)	6P3P2.0	0.17125E+16	0.15486E-02	0.42753E-04	0.1099951E+05
(25)	6F3F2.0	0.17250E+16	0.19469E+01	0.54161E-01	0.1091591E+05
(25)	7P3P0.0	0.18697E+16	0.14069E-01	0.42408E-03	0.1007468E+05
(25)	7P3P1.0	0.18697E+16	0.10552E-01	0.31806E-03	0.1007468E+05
(25)	7P3P2.0	0.18697E+16	0.70347E-03	0.21204E-04	0.1007468E+05
(25)	7F3F2.0	0.18779E+16	0.84912E+00	0.25707E-01	0.1003046E+05

## INTERACTIONS -- QUADRUPOLE -

0.18776E+16	0.89407E+04
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## 9 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	3D102.0	186099.250	2.998	198305.000	125.491	122.041

INTERACTIONS -- DIPOLE -  
DESIGNATION

	W	RAA**2	F	W L VAC	
(25)	221P1.0	0.28198E+16	0.93748E+01	0.71030E+00	0.6679969E+04
(25)	3P1P1.0	0.19661E+14	0.40033E+02	0.12689E-01	0.9580838E+06
(25)	4F1F3.0	0.10774E+16	0.62544E+02	0.10157E+01	0.1859858E+05
(25)	4P1P1.0	0.10149E+16	0.56179E+00	0.01913E-02	0.1856094E+05
(25)	5F1F3.0	0.14721E+16	0.66114E+01	0.15690E+00	0.1279580E+05
(25)	5P1P1.0	0.14763E+16	0.78715E-01	0.18734E-02	0.1275917E+05
(25)	6F1F3.0	0.17249E+16	0.19434E+01	0.54055E-01	0.1092008E+05
(25)	6P1P1.0	0.17273E+16	0.25723E-01	0.71630E-03	0.1090520E+05
(25)	7F1F3.0	0.19773E+16	0.84734E+00	0.25644E-01	0.1003399E+05
(25)	7P1P1.0	0.18788E+16	0.11836E-01	0.35850E-03	0.1002588E+05
(25)	8P1P1.0	0.19771E+16	0.65803E-02	0.20974E-03	0.9527152E+04
(25)	12P1P1.0	0.20930E+16	0.27033E-02	0.91214E-04	0.8999937E+04

## 10 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	3P1P1.0	186203.625	3.011	198305.000	182.702	176.573

INTERACTIONS -- DIPOLE -  
DESIGNATION

	W	RAA**2	F	W L VAC	
(25)	1S1S0.0	0.35074E+17	0.20098E-01	0.34093E-01	0.5370464E+03
(25)	2S1S0.0	0.37545E+16	0.82222E+00	0.14910E+00	0.5017070E+04
(25)	3S1S0.0	0.25327E+15	0.50898E+02	0.62345E+00	0.7437362E+05
(25)	3D102.0	0.19661E+14	0.66721E+02	0.12689E-01	0.9580838E+06
(25)	4S1S0.0	0.49113E+15	0.71251E+01	0.10236E+00	0.2113774E+05
(25)	4D102.0	0.98644E+15	0.40745E+02	0.64798E+00	0.1959467E+05
(25)	5S1S0.0	0.14041E+16	0.81778E+00	0.18516E-01	0.1341539E+05
(25)	5D102.0	0.14521E+16	0.60377E+01	0.14125E+00	0.1297195E+05
(25)	6S1S0.0	0.16775E+16	0.26096E+00	0.70572E-02	0.1122893E+05
(25)	6D102.0	0.17050E+16	0.20460E+01	0.56238E-01	0.1104804E+05
(25)	7S1S0.0	0.18402E+16	0.12013E+00	0.35641E-02	0.1023587E+05
(25)	7D102.0	0.18574E+16	0.96385E+00	0.28862E-01	0.1014128E+05

## 11 - SEQ. NUM.

PR FE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S) 43351.0	19222.437	3.700	198305.000	475.287	471.789

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(2S) 2P3P0.0	0.39953E+16	0.52451F-01	0.10137E-01	0.4714699E+04
(2S) 2P3P1.0	0.39955E+16	0.15738E+00	0.10137E-01	0.4714477E+04
(2S) 2P3P2.0	0.39955E+16	0.26230E+00	0.10137E-01	0.4714465F+04
(2S) 3P3P0.0	0.39157E+15	0.33543E+01	0.14464E+00	0.2112741E+05
(2S) 3P3P1.0	0.39163E+15	0.10063E+02	0.14464E+00	0.2112657F+05
(2S) 3P3P2.0	0.39163E+15	0.16771E+02	0.14465E+00	0.2112602F+05
(2S) 4P3P0.0	0.17311E+15	0.48310E+02	0.13484E+00	0.1088139E+06
(2S) 4P3P1.0	0.17311E+15	0.14494E+03	0.40450E+00	0.1088139E+06
(2S) 4P3P2.0	0.17311E+15	0.24158E+03	0.67418E+00	0.1088139E+06
(2S) 5P3P0.0	0.65977E+15	0.46199E+00	0.49139E-02	0.2855002F+05
(2S) 5P3P1.0	0.65977E+15	0.13859F+01	0.14741E-01	0.2855002E+05
(2S) 5P3P2.0	0.65977E+15	0.23099E+01	0.24569E-01	0.2855002E+05
(2S) 6P3P0.0	0.92200E+15	0.16178E+00	0.24047E-02	0.2043005E+05
(2S) 6P3P1.0	0.92200E+15	0.48533E+00	0.72140E-02	0.2043005E+05
(2S) 6P3P2.0	0.92200E+15	0.80891E+00	0.12024E-01	0.2043005F+05
(2S) 7P3P0.0	0.10792E+16	0.75408E-01	0.13120E-02	0.1745410E+05
(2S) 7P3P1.0	0.10792E+16	0.22622E+00	0.39358E-02	0.1745410E+05
(2S) 7P3P2.0	0.10792E+16	0.37704E+00	0.65598E-02	0.1745410E+05

## 12 - SEQ. NUM.

PR FE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S) 45150.0	190934.500	3.958	198305.000	561.043	554.958

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(2S) 2P1P1.0	0.37306F+16	0.42779E+00	0.85744E-02	0.5049133E+04
(2S) 3P1P1.0	0.39113E+15	0.21375E+02	0.10236E+00	0.2113774E+05
(2S) 4P1P1.0	0.10406E+15	0.51018E+03	0.85587E+00	0.1810159E+06
(2S) 5P1P1.0	0.56552E+15	0.16064E+02	0.14645E+00	0.3330835F+05
(2S) 6P1P1.0	0.81650E+15	0.40218E+01	0.52992E-01	0.2306971E+05
(2S) 7P1P1.0	0.26803E+15	0.16671E+01	0.26016E-01	0.1945927E+05
(2S) 8P1P1.0	0.10663E+16	0.87852E+00	0.15103E-01	0.1766453E+05
(2S) 10P1P1.0	0.11822E+16	0.34509E+00	0.65769E-02	0.1593387E+05

## 13 - SEQ. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		403D0.0	191211.437	3.932	198305.006	559.990	544.915

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	2S3S1.0	0.59073E+16	0.83218E-01	0.26417E-02	0.3188661E+04
(25)	3S3S1.0	0.15032E+16	0.67929E+00	0.54873E-02	0.1253074E+05
(25)	3D3D1.0	0.96359E+15	0.23761E+01	0.12304E-01	0.1954819E+05
(25)	4S3S1.0	0.17311E+15	0.14495E+03	0.13484E+00	0.1088139E+06
(25)	4D3D1.0	0.42830E+14	0.29114E+03	0.20102E+00	0.4398021E+06
(25)	5S3S1.0	0.40119E+15	0.34391E+02	0.22244E+00	0.4695111E+05
(25)	5D3D1.0	0.50860E+15	0.53490E+02	0.43859E+00	0.3703618E+05
(25)	6S3S1.0	0.70053E+15	0.30628E+01	0.34590E-01	0.2688895E+05
(25)	6D3D1.0	0.76155E+15	0.10099E+02	0.12399E+00	0.2473449E+05
(25)	7S3S1.0	0.87612E+15	0.90142E+00	0.12732E-01	0.2149988E+05
(25)	7D3D1.0	0.91405E+15	0.37472E+01	0.55218E-01	0.2060767E+05

## 14 - SEQ. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		403D1.0	191438.812	3.997	198305.000	502.111	490.429

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	2P3P1.0	0.42112E+16	0.60957E+00	0.12415E+00	0.4472945E+04
(25)	2P3P1.0	0.42114E+16	0.45718E+00	0.31039E-01	0.4472746E+04
(25)	2P3P2.0	0.42114E+16	0.30479E-01	0.12415E-02	0.4472734E+04
(25)	3P3P0.0	0.11075E+16	0.89306E+01	0.47836E+00	0.1709807E+05
(25)	3P3P1.0	0.11075E+16	0.66979E+01	0.11959E+00	0.1700752E+05
(25)	3P3P2.0	0.11076E+16	0.44653E+00	0.47838E-02	0.1700716E+05
(25)	4P3P0.0	0.42830E+14	0.97046E+02	0.20102E+00	0.4398021E+06
(25)	4P3P1.0	0.42830E+14	0.72784E+02	0.50255E-01	0.4393021E+06
(25)	4P3P2.0	0.42830E+14	0.48527E+01	0.20102E-02	0.4393021E+06
(25)	4F3F2.0	0.14716E+13	0.15124E+03	0.35880E-02	0.1280003E+08
(25)	5P3P0.0	0.44384E+15	0.41137E+01	0.29435E-01	0.4244032E+05
(25)	5P3P1.0	0.44384E+15	0.30852E+01	0.22076E-01	0.4244032E+05
(25)	5P3P2.0	0.44384E+15	0.20569E+00	0.14717E-02	0.4244032E+05
(25)	5F3F2.0	0.46553E+15	0.11756E+03	0.88431E+00	0.4037141E+05
(25)	6P3P0.0	0.70606E+15	0.49871E+00	0.56767E-02	0.2667823E+05
(25)	6P3P1.0	0.70606E+15	0.37403E+00	0.42575E-02	0.2667823E+05
(25)	6P3P2.0	0.70606E+15	0.24936E-01	0.28384E-03	0.2667823E+05
(25)	6F3F2.0	0.71918E+15	0.16044E+02	0.18602E+00	0.2619172E+05
(25)	7P3P0.0	0.86327E+15	0.15559E+00	0.21653E-02	0.2182006E+05
(25)	7P3P1.0	0.86327E+15	0.11669E+00	0.16240E-02	0.2182006E+05
(25)	7P3P2.0	0.86327E+15	0.77793E-02	0.10827E-03	0.2182006E+05
(25)	7F3F2.0	0.87151E+15	0.51465E+01	0.72308E-01	0.2161373E+05

## INTERACTIONS -- QUADRUPOLE -

C.10064E+16	0.10120E+06
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## 15 - SEQ. NUM.

PP	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4D1D2.0	191440.687	3.997	198305.000	502.443	491.392

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(25)	2P1P1.0	0.38260E+15	0.11725E+01	0.12053E+00	0.4923301E+04
(25)	3P1P1.0	0.98643E+15	0.24447E+02	0.54798E+00	0.1909467E+05
(25)	4F1F3.0	0.12371E+13	0.15123E+03	0.30137E-02	0.1523810E+08
(25)	4P1P1.0	0.87119E+13	0.17133E+03	0.24063E-01	0.2162162E+07
(25)	5F1F3.0	0.46594E+15	0.11824E+03	0.80821E+00	0.4042650E+05
(25)	5P1P1.0	0.47017E+15	0.31116E+01	0.23586E-01	0.4006310E+05
(25)	6F1F3.0	0.71880E+15	0.16055E+02	0.18603E+00	0.2620545E+05
(25)	6P1P1.0	0.72116E+15	0.43335E+00	0.50381E-02	0.2611989E+05
(25)	7F1F3.0	0.87113E+15	0.51449E+01	0.72254E-01	0.2162308E+05
(25)	7P1P1.0	0.87265E+15	0.14007E+00	0.19706E-02	0.2159545E+05
(25)	8P1P1.0	0.97100E+15	0.64405E-01	0.10082E-02	0.1939911E+05
(25)	10P1P1.0	0.10868E+16	0.21845E-01	0.38275E-03	0.1733177E+05

## 16 - SEQ. NUM.

PP	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4P1P1.0	191486.937	4.011	198305.000	605.725	592.481

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(25)	1S1S0.0	0.36069E+17	0.80000E-02	0.13955E-01	0.5222288E+03
(25)	2S1S0.0	0.47497E+15	0.21200E+00	0.48699E-01	0.3965854E+04
(25)	3S1S0.0	0.12485E+16	0.23810E+01	0.14375E+00	0.1508779E+05
(25)	3D1D2.0	0.10149E+16	0.93631E+00	0.91913E-02	0.1856094E+05
(25)	4S1S0.0	0.10406E+15	0.17006E+03	0.85587E+00	0.1810159E+06
(25)	4D1D2.0	0.87111E+13	0.28550E+03	0.24063E-01	0.2162162E+07
(25)	5S1S0.0	0.40891E+15	0.24051E+02	0.15853E+00	0.4606570E+05
(25)	5D1D2.0	0.45690E+15	0.87928E+02	0.64767E+00	0.4122648E+05
(25)	6S1S0.0	0.68231E+15	0.26139E+01	0.28753E-01	0.2760715E+05
(25)	6D1D2.0	0.70977E+15	0.13353E+02	0.15280E+00	0.2653884E+05
(25)	7S1S0.0	0.94505E+15	0.81041E+00	0.11041E-01	0.2229033E+05
(25)	7D1D2.0	0.96222E+15	0.45738E+01	0.63577E-01	0.2184658E+05

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## 17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		55751.0	193741.312	4.701	198305.000	1231.679	1225.406

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(25) 2P3P2.0	0.45696E+16	0.16194F-01	0.35789E-02	0.4122160E+04
(25) 2P3P1.0	0.45693E+16	0.48581E-01	0.35790E-02	0.412198HE+04
(25) 2P3P2.0	0.45693E+16	0.80979E-01	0.35791E-02	0.4121977E+04
(25) 3P3P0.0	0.14659E+16	0.31555F+00	0.22371E-01	0.1285006E+05
(25) 3P3P1.0	0.14659F+15	0.94664E+00	0.22371E-01	0.1284975E+05
(25) 3P3P2.0	0.14659E+15	0.15778E+01	0.22372E-01	0.1284955E+05
(25) 4P3P0.0	0.40119F+15	0.11464E+02	0.22244E+00	0.4695111E+05
(25) 4P3P1.0	0.40119F+15	0.34390E+02	0.22243E+00	0.4695111E+05
(25) 4P3P2.0	0.40119E+15	0.57318E+02	0.22243E+00	0.4695111F+05
(25) 5P3P0.0	0.85471E+14	0.12325E+03	0.16982F+00	0.2203856E+06
(25) 5P3P1.0	0.85471E+14	0.36973E+03	0.50945E+00	0.2203856E+06
(25) 5P3P2.0	0.85471E+14	0.61623E+03	0.84910E+00	0.2203856F+06
(25) 6P3P0.0	0.34770E+15	0.82656E+00	0.46332E-02	0.5417485E+05
(25) 6P3P1.0	0.34770F+15	0.24796E+01	0.13899E-01	0.5417485F+05
(25) 6P3P2.0	0.34770E+15	0.41328E+01	0.23165E-01	0.5417485E+05
(25) 7P3P0.0	0.50490E+15	0.28994E+00	0.23600E-02	0.3730734E+05
(25) 7P3P1.0	0.50490E+15	0.86980E+00	0.70799E-02	0.3730734E+05
(25) 7P3P2.0	0.50490E+15	0.14497E+01	0.11800E-01	0.3730734E+05

## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		55150.0	193657.750	4.858	198305.000	1404.310	1394.294

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(25) 2P1P1.0	0.42436E+16	0.14283E+00	0.32116E-02	0.4438797E+04
(25) 3P1P1.0	0.14041E+16	0.24539F+01	0.18515E-01	0.1341539E+05
(25) 4P1P1.0	0.40891E+15	0.72152E+02	0.15855E+00	0.4606570E+05
(25) 5P1P1.0	0.52554E+14	0.12765E+04	0.10815E+01	0.3584229F+06
(25) 6P1P1.0	0.30354E+15	0.31244E+02	0.15289E+00	0.6205639E+05
(25) 7P1P1.0	0.45507E+15	0.76010E+01	0.55759E-01	0.4139608E+05
(25) 8P1P1.0	0.55338E+15	0.31195E+01	0.27830E-01	0.3403893E+05
(25) 10P1P1.0	0.66920E+15	0.97199E+00	0.10486E-01	0.2814770E+05



## 19 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		5D3D0.0	193745.062	4.931	198305.000	1417.748	1385.991

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	# L VAC
(25)	2S3S1.0	0.63940E+16	0.37091E-01	0.12745E-02
(25)	3S3S1.0	0.19897E+16	0.23439F+C0	0.25064E-02
(25)	3D3D1.0	0.14507E+16	0.29377F+C0	0.22895F-02
(25)	4S3S1.0	0.65977E+15	0.13860E+01	0.49139E-02
(25)	4D3D1.0	0.44384E+15	0.12341E+02	0.29435E-01
(25)	5S3S1.0	0.85471E+14	0.36974E+03	0.16982E+00
(25)	5D3D1.0	0.21933E+14	0.79212F+03	0.28008E+00
(25)	6S3S1.0	0.21387E+15	0.87253E+C2	0.30083E+00
(25)	6D3D1.0	0.27488E+15	0.96972E+02	0.42974E+00
(25)	7S3S1.0	0.34946E+15	0.74386F+01	0.46704E-01
(25)	7D3D1.0	0.42739E+15	0.18181E+C2	0.12527E+00

## 20 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		5D3D1.0	193911.500	4.996	198305.000	1345.766	1313.031

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	# L VAC
(25)	2P4P.0	0.46772E+16	0.20989E+C0	0.47476E-01
(25)	2P3P1.0	0.46772E+15	0.15741F+C0	0.11869E-01
(25)	2P4P2.0	0.46772E+16	0.10494E-01	0.47478E-03
(25)	3P4P.0	0.15733E+16	0.16382E+C1	0.12465E+00
(25)	3P3P1.0	0.15733E+16	0.12287F+01	0.31164E-01
(25)	3P4P2.0	0.15733E+16	0.81913F-01	0.12466F-02
(25)	4P4P.0	0.50860E+15	0.17830E+02	0.43859E+00
(25)	4P3P1.0	0.50860E+15	0.13373E+02	0.10965E+00
(25)	4P4P2.0	0.50860E+15	0.89151E+C0	0.43859E-02
(25)	4F3F2.0	0.46430E+15	0.17186F+C1	0.77182E-02
(25)	5P3P.0	0.21933E+14	0.26404E+C3	0.28008E+00
(25)	5P3P1.0	0.21933E+14	0.19803E+03	0.70020E-01
(25)	5P3P2.0	0.21933E+14	0.13202F+C2	0.28008E-02
(25)	5F3F2.0	0.81232E+12	0.54023E+C3	0.70749E-02
(25)	6P3P.0	0.24030E+15	0.12653E+02	0.49017E-01
(25)	6P3P1.0	0.24030E+15	0.94897F+C1	0.36762F-01
(25)	6P3P2.0	0.24030E+15	0.63265E+00	0.24508E+02
(25)	6F3F2.0	0.25341F+15	0.20491F+C3	0.83712F+C0
(25)	7P3P.0	0.39750E+15	0.15057C+C1	0.96488E-02
(25)	7P3P1.0	0.39750E+15	0.11293E+01	0.72365E-02
(25)	7P3P2.0	0.39750E+15	0.75285E-01	0.48244E-03
(25)	7F3F2.0	0.40574E+15	0.30001E+02	0.19624E+00

## INTERACTIONS -- QUADRUPOLE -

0.14722E+16	0.60797E+06
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ORIGINAL PAGE IS  
OF POOR QUALITY

## 21 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		50102.0	193912.562	4.997	198305.000	1345.510	1311.582

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W	L VAC
(25)	2P1P1.0	0.42916E+16	0.37624E+00	0.43385E-01	0.4389152E+04
(25)	3P1P1.0	0.14521E+16	0.36202E+01	0.14125E+00	0.1297195E+05
(25)	4F1F3.0	0.46438E+15	0.17071E+01	0.91286E-02	0.4056281E+05
(25)	4P1P1.0	0.45690E+15	0.52757E+02	0.64767E+00	0.4122648E+05
(25)	5F1F3.0	0.32964E+12	0.53919E+03	0.28654E-02	0.5714285E+08
(25)	5P1P1.0	0.45561E+13	0.46923E+03	0.34465E-01	0.4134366E+07
(25)	6F1F3.0	0.25319E+15	0.20576E+03	0.83985E+00	0.7439781E+05
(25)	6P1P1.0	0.25554E+15	0.99702E+01	0.41074E-01	0.7371231E+05
(25)	7F1F3.0	0.40551E+15	0.30049E+02	0.19645E+00	0.4645086E+05
(25)	7P1P1.0	0.40703E+15	0.13734E+01	0.90122E-02	0.4627755E+05
(25)	8P1P1.0	0.50538E+15	0.44145E+00	0.35967E-02	0.3727171E+05
(25)	10P1P1.0	0.62120E+15	0.10938E+00	0.10954E-02	0.3032255E+05

## 22 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		50102.0	193916.750	5.011	198305.000	1513.285	1478.482

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W	L VAC
(25)	1S1S0.0	0.36531E+17	0.39936E-02	0.70558E-02	0.5156318E+03
(25)	2S1S0.0	0.52111E+16	0.88089E-01	0.22201E-01	0.3614667E+04
(25)	3S1S0.0	0.17093E+16	0.61123E+00	0.50548E-01	0.1101602E+05
(25)	30102.0	0.14763E+16	0.13119E+00	0.18734E-02	0.1275917E+05
(25)	4S1S0.0	0.56552E+15	0.53547E+01	0.14646E+00	0.3330835E+05
(25)	40102.0	0.47017E+15	0.51860E+01	0.23585E-01	0.4036310E+05
(25)	5S1S0.0	0.42554E+14	0.42554E+03	0.10816E+01	0.3584229E+06
(25)	50102.0	0.45561E+13	0.78205E+03	0.34465E-01	0.4134366E+07
(25)	6S1S0.0	0.22045E+15	0.60539E+02	0.21554E+00	0.8529237E+05
(25)	60102.0	0.24831E+15	0.16742E+03	0.67019E+00	0.7585812E+05
(25)	7S1S0.0	0.18359E+15	0.63209E+01	0.39089E-01	0.4910536E+05
(25)	70102.0	0.40076E+15	0.25248E+02	0.16312E+00	0.4700214E+05

## 23 - SEQ. NUM.

PR	FE	DESIG	LFVFL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		6P3D1.C	195187.187	5.931	198305.000	3005.584	2909.873

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(25)	253S1.0	C.66562E+16	0.19866E-01	0.71060E-03	0.2829905E+04
(25)	353S1.0	0.22521E+16	0.10838E+00	0.13117E-02	0.9353910E+04
(25)	303D1.0	C.17125E+16	0.92914E-01	0.85505E-03	0.1099951E+05
(25)	453S1.0	C.92203E+15	0.43535E+00	0.24047E-02	0.2043005E+05
(25)	403D1.0	C.70606E+15	0.14961E+01	0.56767E-02	0.2667823E+05
(25)	553S1.0	0.34770E+15	0.24797E+01	0.46332E-02	0.5417485E+05
(25)	503D1.0	0.24030E+15	0.37959E+02	0.49016E-01	0.7838906E+05
(25)	653S1.0	0.48363E+14	0.78662E+03	0.20444E+00	0.3894839E+06
(25)	603D1.0	0.12556E+14	0.17327E+04	0.35533E+00	0.1488372E+07
(25)	753S1.0	0.12723E+15	0.18496E+03	0.37939E+00	0.1480522E+06
(25)	703D1.0	0.16516E+15	0.16293E+03	0.43382E+00	0.1140494E+06

## 24 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		6D3D1.0	195254.375	5.996	198305.000	2925.825	2814.927

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(25)	2P3P1.0	0.49294E+16	0.95292E-01	0.23674E-01	0.3820850E+04
(25)	2P3P1.0	0.49301E+16	0.74464E-01	0.59183E-02	0.3820704E+04
(25)	2P3P2.0	0.49301E+16	0.49646E-02	0.23676E-03	0.3820695E+04
(25)	3P3P1.0	0.18262E+15	0.60020E+00	0.53012E-01	0.1031446E+05
(25)	3P3P1.0	C.18263E+16	0.45015E+00	0.13253E-01	0.1031426E+05
(25)	3P3P2.0	C.18263E+16	0.30010E-01	0.53015E-03	0.1031413E+05
(25)	4P3P1.0	0.76155E+15	0.33663E+01	0.12399E+00	0.2473449E+05
(25)	4P3P1.0	C.76155E+15	0.25247E+01	0.30995E-01	0.2473449E+05
(25)	4P3P2.0	0.76155E+15	0.16831E+00	0.12399E-02	0.2473449E+05
(25)	4F3F2.0	0.71725E+15	0.19915E+00	0.13817E-02	0.2626223E+05
(25)	5P3P1.0	0.27488E+15	0.32324E+02	0.42974E+00	0.6852537E+05
(25)	5P3P1.0	C.27488E+15	0.24243E+02	0.10743E+00	0.6852537E+05
(25)	5P3P2.0	C.27488E+15	0.15162E+01	0.42974E-02	0.6852537E+05
(25)	5F3F2.0	0.25214E+15	0.82885E+01	0.20215E-01	0.7470700E+05
(25)	6P3P1.0	0.12656E+14	0.57757E+03	0.35353E+00	0.1488372E+07
(25)	6P3P1.0	0.12654E+14	0.43319E+03	0.88381E-01	0.1488372E+07
(25)	6P3P2.0	0.12656E+14	0.29879E+02	0.35353E-02	0.1488372E+07
(25)	6F3F2.0	0.45014E+12	0.13123E+04	0.97135E-02	0.4102563E+08
(25)	7P3P1.0	0.14455E+15	0.30036E+02	0.69993E-01	0.1303144E+06
(25)	7P3P1.0	0.14455E+15	0.22527E+02	0.52494E-01	0.1303144E+06
(25)	7P3P2.0	0.14455E+15	0.15018E+01	0.34997E-02	0.1303144E+06
(25)	7F3F2.0	0.15279E+15	0.33495E+03	0.82505E+00	0.1232855E+06

## INTERACTIONS -- QUADRUPOLE -

0.17251E+16	0.24949E+07
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## 25 - SEQ. NUM.

PR FE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25) 6D1D2.0	195255.000	5.997	198305.000	2927.214	2924.958

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(25) 2P1P1.0	0.45445E+16	0.17204E+00	0.21007E-01	0.4144926F+04
(25) 3P1P1.0	0.17050E+16	0.12276E+01	0.56238E-01	0.1104804E+C5
(25) 4P1F1.0	0.71725E+15	0.19782F+00	0.16338E-02	0.2626223F+C5
(25) 4P1P1.0	0.70977E+15	0.80120F+01	0.15280E+00	0.2653884E+C5
(25) 5F1F3.0	0.25254E+15	0.81160E+01	0.23602E-01	0.7458856F+C5
(25) 5P1P1.0	0.24831E+15	0.10045F+03	0.67019E+00	0.7585812E+C5
(25) 6P1F3.0	0.31787E+12	0.13115E+04	0.67207E-02	0.5925925E+C8
(25) 6P1P1.0	0.26724E+13	0.10306E+04	0.44401E-01	0.7048458E+07
(25) 7F1F3.0	0.15265E+15	0.33660E+03	0.82832F+00	0.1233996E+C6
(25) 7P1P1.0	0.15417E+15	0.24301E+C2	0.60396E-01	0.1221840E+06
(25) 8P1P1.0	0.25252E+15	0.33332E+01	0.13569E-01	0.7459550E+C5
(25) 10P1P1.0	0.76834E+15	0.47342E+00	0.28112E-02	0.5113945E+C5

## 26 - SEQ. NUM.

PR FE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25) 6P1P1.0	195269.187	6.011	198305.000	3172.826	3060.260

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(25) 1S1SC.0	0.36782E+17	0.22811F-C2	0.40580E-C2	0.5121135E+03
(25) 2S1SC.0	0.54621E+16	0.45774E-C1	0.12092E-01	0.3448573E+04
(25) 3S1SC.0	0.19609E+16	0.25501E+00	0.24279E-01	0.9606031F+04
(25) 3D1D2.0	0.17273E+16	0.49872E-01	0.71630E-C3	0.1090520E+C5
(25) 4S1SC.0	0.81650E+15	0.13406E+C1	0.52940E-01	0.2306971E+C5
(25) 4D1D2.0	0.72116E+15	0.72224C+00	0.50381E-02	0.2611989C+05
(25) 5S1SC.0	0.30354E+15	0.10415E+02	0.15289E+00	0.6205639E+C5
(25) 5D1D2.0	0.25554E+15	0.16617E+02	0.41074E-01	0.7371231E+05
(25) 6S1SC.0	0.30138E+14	0.89407E+03	0.13032E+01	0.5250700F+06
(25) 6D1D2.0	0.26724E+13	0.17175E+04	0.44401E-01	0.7048458E+07
(25) 7S1SC.0	0.13261E+15	0.12772E+03	0.27305E+00	0.1420454E+C6
(25) 7D1D2.0	0.14977E+15	0.29138E+03	0.70355E+C0	0.1257664E+C6

27 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		75*SI.C	195H02.625	6.701	198305.000	5064.023	5026.195

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	2P3P1.0	0.50445E+16	0.39780F-02	0.97052E-03	0.3734069E+04
(25)	2P3P1.0	0.50447F+16	0.11034F-01	0.97053E-03	0.3733929E+04
(25)	2P3P2.0	0.50447E+16	0.19890F-01	0.97055E-03	0.3733921F+04
(25)	3P3P1.0	0.19408F+16	0.42948E-01	0.40314E-02	0.9705555F+04
(25)	3P3P1.0	0.19408E+16	0.12884E+00	0.40313E-02	0.9705379F+04
(25)	3P3P2.0	0.19408E+16	0.21474F+00	0.40315E-02	0.9705262E+04
(25)	4P3P1.0	0.87612F+15	0.30047E+00	0.12732F-01	0.2147988E+05
(25)	4P3P1.0	0.87612E+15	0.90140E+00	0.12732E-01	0.2149988E+05
(25)	4P3P2.0	0.87612E+15	0.15024F+01	0.12732E-01	0.2149988E+05
(25)	5P3P1.0	0.38946E+15	0.24795F+01	0.46704E-01	0.4836613F+05
(25)	5P3P1.0	0.38946E+15	0.74384E+01	0.46703E-01	0.4836613E+05
(25)	5P3P2.0	0.38946E+15	0.12398F+02	0.46704E-01	0.4836613F+05
(25)	6P3P1.0	0.12723E+15	0.61655E+02	0.37938E+00	0.1480522E+06
(25)	6P3P1.0	0.12723E+15	0.18495E+03	0.37937E+00	0.1480522E+06
(25)	6P3P2.0	0.12723E+15	0.30827E+03	0.37938E+00	0.1480522E+06
(25)	7P3P1.0	0.29974E+14	0.49399E+03	0.23870E+00	0.6284367E+06
(25)	7P3P1.0	0.29974E+14	0.14819E+04	0.71610E+00	0.6284367E+06
(25)	7P3P2.0	0.29974E+14	0.24699E+04	0.11935E+01	0.5284367E+06

## 28 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)	704D1.0	195064.000	6.996	198305.000	5572.316	4767.953

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(25)	2P3P1.0	0.50824E+16	0.55510E-01	0.13669E-01	0.3706200E+04
(25)	2P3P1.0	0.50826E+16	0.41707E-01	0.34174E-02	0.3706663E+04
(25)	2P3P2.0	0.50826E+16	0.27805E-02	0.13670E-03	0.3706054E+04
(25)	3P3P0.0	0.19787E+16	0.29402E+00	0.28137E-01	0.9519500E+04
(25)	3P3P1.0	0.19784E+16	0.22051E+00	0.70344E-02	0.9519332E+04
(25)	3P3P2.0	0.19788E+16	0.14701E-01	0.28138E-03	0.9519219E+04
(25)	4P3P0.0	0.91405E+15	0.12491E+01	0.55218E-01	0.2060767E+05
(25)	4P3P1.0	0.91405E+15	0.93679E+00	0.13804E-01	0.2060767E+05
(25)	4P3P2.0	0.91405E+15	0.62454E-01	0.55218E-03	0.2060767E+05
(25)	4F3F2.0	0.36975E+15	0.58710E-01	0.49393E-03	0.2165732E+05
(25)	5P3P0.0	0.42739E+15	0.00602E+01	0.12527E+00	0.4407349E+05
(25)	5P3P1.0	0.42739E+15	0.45451E+01	0.31316E-01	0.4407349E+05
(25)	5P3P2.0	0.42739E+15	0.30301E+00	0.12527E-02	0.4407349E+05
(25)	5F3F2.0	0.40464E+15	0.98246E+00	0.38454E-02	0.4655087E+05
(25)	6P3P0.0	0.16516E+15	0.54309E+02	0.43382E+00	0.1140494E+06
(25)	6P3P1.0	0.16516E+15	0.40732E+02	0.10845E+00	0.1140494E+06
(25)	6P3P2.0	0.16516E+15	0.27155E+01	0.43382E-02	0.1140494E+06
(25)	6F3F2.0	0.15205E+15	0.24292E+02	0.35727E-01	0.1238869E+06
(25)	7P3P0.0	0.79584E+13	0.11032E+04	0.42464E+00	0.2366863E+07
(25)	7P3P1.0	0.79584E+13	0.82743E+03	0.10615E+00	0.2366863E+07
(25)	7P3P2.0	0.79584E+13	0.55163E+02	0.42465E-02	0.2366863E+07
(25)	7F3F2.0	0.28255E+12	0.26452E+04	0.12049E-01	0.6666666E+08

## INTERACTIONS -- QUADRUPOLE -

0.18776E+16	0.20325E+07
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## 29 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)	701D2.0	195064.312	6.996	198305.000	5573.930	4888.891

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(25)	2P1P1.0	0.46969E+16	0.94462E-01	0.11921E-01	0.4010397E+04
(25)	3P1P1.0	0.18574E+16	0.57831E+00	0.28862E-01	0.1014128E+05
(25)	4F1F3.0	0.36969E+15	0.58456E-01	0.58543E-03	0.2165979E+05
(25)	4P1P1.0	0.96222E+15	0.27443E+01	0.63577E-01	0.2184658E+05
(25)	5F1F3.0	0.10499E+15	0.96651E+00	0.45073E-02	0.4651162E+05
(25)	5P1P1.0	0.40076E+15	0.15149E+02	0.16312E+00	0.4700214E+05
(25)	6F1F3.0	0.15213E+15	0.24089E+02	0.42194E-01	0.1234198E+06
(25)	6P1P1.0	0.14077E+15	0.17483E+03	0.70355E+00	0.1257664E+06
(25)	7F1F3.0	0.20014E+12	0.26441E+04	0.85312E-02	0.9411763E+08
(25)	7P1P1.0	0.17189E+13	0.19737E+04	0.54692E-01	0.1095890E+08
(25)	8P1P1.0	0.10007E+15	0.50417E+02	0.81335E-01	0.1842352E+06
(25)	10P1P1.0	0.21589E+15	0.21339E+01	0.74240E-02	0.8725050E+05

ORIGINAL PAGE IS  
OF POOR QUALITY

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1S)	43487.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 2S2S0.5	0.0	
2	(1S) 2P2P0.5	14904.00	14904.00
3	(1S) 3S2S0.5	27206.00	
4	(1S) 3P2P0.5	30925.00	30925.00
5	(1S) 3D2D1.5	31293.00	31293.00
6	(1S) 4S2S0.5	35012.00	
7	(1S) 4P2P0.5	36470.00	36470.00
8	(1S) 4D2D1.5	36623.00	36623.00
9	(1S) 4F2F2.5	36630.00	36630.00
10	(1S) 5S2S0.5	39299.00	
11	(1S) 5P2P0.5	39016.00	39016.00
12	(1S) 5D2D1.5	39094.00	39094.00
13	(1S) 5F2F2.5	39104.00	39104.00
14	(1S) 6S2S0.5	39988.00	
15	(1S) 6P2P0.5	40391.00	40391.00
16	(1S) 6D2D1.5	40437.00	40437.00
17	(1S) 7S2S0.5	40968.00	
18	(1S) 7P2P0.5	41217.00	41217.00
19	(1S) 7D2D1.5	41246.00	41246.00
20	(1S) 8S2S0.5	41489.00	41489.00
21	(1S) 8P2P0.5	41587.00	
22	(1S) 8D2D1.5	41751.00	41751.00
23	(1S) 8F2F2.5	41771.00	41771.00
24	(1S) 9S2S0.5	42003.00	
25	(1S) 9P2P0.5	42118.00	42118.00
26	(1S) 9D2D1.5	42131.00	42131.00
27	(1S) 10S2S0.5	42294.00	
28	(1S) 10P2P0.5	42379.00	42379.00
29	(1S) 11S2S0.5	42510.00	
30	(1S) 11P2P0.5	42570.00	42570.00
31	(1S) 11D2D1.5	42578.00	42578.00
32	(1S) 12P2P0.5	42719.00	42719.00
33	(1S) 12D2D1.5	42725.00	42725.00
34	(1S) 13P2P0.5	42833.00	42833.00
35	(1S) 14P2P0.5	42923.00	42923.00
36	(1S) 15P2P0.5	42996.00	42996.00
37	(1S) 16P2P0.5	43055.00	43055.00
38	(1S) 17P2P0.5	43105.00	43105.00
39	(1S) 18P2P0.5	43147.00	43147.00

Table 2. Lithium

ORIGINAL PAGE IS  
OF POOR QUALITY

1 - SEQ. NUM.

PR FF DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S) 252SD.5	0.0	1.588	43487.000	17.170	16.731

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(1S) 2P2P1.5	0.28074E+16	0.55310E+01	0.25033E+00	0.6709605F+04	
(1S) 2P2P1.5	0.28074E+16	0.11062E+02	0.50065E+00	0.6709605E+04	
(1S) 3P2P1.5	0.58252E+16	0.14607E-01	0.13718E-02	0.3233630E+04	
(1S) 3P2P1.5	0.58252E+16	0.29214E-01	0.27435E-02	0.3233630F+04	
(1S) 4P2P1.5	0.68697E+16	0.11596E-01	0.12843E-02	0.2741979E+04	
(1S) 4P2P1.5	0.68697E+16	0.23193F-01	0.25685F-02	0.2741979F+04	
(1S) 5P2P1.5	0.73493E+16	0.65452E-02	0.77547E-03	0.2553051E+04	
(1S) 5P2P1.5	0.73493E+16	0.13090E-01	0.15509F-02	0.2553051F+04	
(1S) 6P2P1.5	0.76083E+16	0.39413E-02	0.48343F-03	0.2475799E+04	
(1S) 6P2P1.5	0.76083E+16	0.78024E-02	0.96685E-03	0.2475799F+04	
(1S) 7P2P1.5	0.77638E+16	0.25432E-02	0.31832E-03	0.2426183E+04	
(1S) 7P2P1.5	0.77638E+16	0.50864E-02	0.63664E-03	0.2426183F+04	
(1S) 8P2P1.5	0.78644E+16	0.17822F-02	0.22596E-03	0.2395152E+04	
(1S) 8P2P1.5	0.78644F+16	0.35643F-02	0.45191E-03	0.2395152F+04	
(1S) 9P2P1.5	0.79336E+16	0.12065F-02	0.15432E-03	0.2374282F+04	
(1S) 9P2P1.5	0.79336E+16	0.24139F-02	0.30863E-03	0.2374282E+04	
(1S) 10P2P1.5	0.79827E+16	0.90171F-03	0.11604E-03	0.2359659E+04	
(1S) 10P2P1.5	0.79827F+16	0.18034E-02	0.23209E-03	0.2359659E+04	
(1S) 11P2P1.5	0.80187E+16	0.82389E-03	0.10651E-03	0.2349072F+04	
(1S) 11P2P1.5	0.80187E+16	0.16478F-02	0.21301E-03	0.2349072E+04	
(1S) 12P2P1.5	0.80468F+16	0.51293E-03	0.66540E-04	0.2340879E+04	
(1S) 12P2P1.5	0.80468F+16	0.10259E-02	0.13308F-03	0.2340879E+04	
(1S) 13P2P1.5	0.80682E+16	0.40526E-03	0.52713E-04	0.2334648E+04	
(1S) 13P2P1.5	0.80682E+16	0.81052E-03	0.10543E-03	0.2334648E+04	
(1S) 14P2P1.5	0.80852E+16	0.35068E-03	0.45709E-04	0.2329753E+04	
(1S) 14P2P1.5	0.80852E+16	0.70135E-03	0.91417E-04	0.2329753E+04	
(1S) 15P2P1.5	0.80989E+16	0.28184E-03	0.36799E-04	0.2325798E+04	
(1S) 15P2P1.5	0.80989E+16	0.56368E-03	0.73598E-04	0.2325798E+04	
(1S) 16P2P1.5	0.81101E+16	0.27634E-03	0.36130E-04	0.2322611E+04	
(1S) 16P2P1.5	0.81101E+16	0.55267E-03	0.72260E-04	0.2322611E+04	
(1S) 17P2P1.5	0.81195E+16	0.19745F-03	0.25845E-04	0.2319916E+04	
(1S) 17P2P1.5	0.81195E+16	0.39491E-03	0.51692E-04	0.2319916E+04	
(1S) 18P2P1.5	0.81274E+16	0.12830E-03	0.16819E-04	0.2317658E+04	
(1S) 18P2P1.5	0.81274E+16	0.25660E-03	0.33621E-04	0.2317658E+04	



## 2 - SEQ. NUM.

PR EF DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S) 2P2D0.5	14904.000	1.959	43487.000	27.214	25.044

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(1S) 2S2SC.5	0.28074E+16	0.55310E+01	0.25033E+00	0.6709605E+04	
(1S) 3S2SO.5	0.23173E+16	0.29443E+01	0.10999E+00	0.8128758E+04	
(1S) 3D2D1.5	0.30852E+16	0.12958E+02	0.64449E+00	0.6105375E+04	
(1S) 4S2SC.5	0.37876E+16	0.20786E+00	0.12692E-01	0.4973145E+04	
(1S) 4D2D1.5	0.40911E+16	0.18775E+01	0.12383E+00	0.4604262E+04	
(1S) 5S2SO.5	0.44068E+16	0.59995E-01	0.42623E-02	0.4274414E+04	
(1S) 5D2D1.5	0.45566E+16	0.63343E+00	0.46531E-01	0.4133937E+04	
(1S) 6S2SC.5	0.47249E+16	0.26387E-01	0.20100E-02	0.3986605E+04	
(1S) 6D2D1.5	0.48095E+16	0.29706E+00	0.23033E-01	0.3916500E+04	
(1S) 7S2SC.5	0.49095E+16	0.14207E-01	0.11244E-02	0.3836709E+04	
(1S) 7D2D1.5	0.49619E+16	0.16508E+00	0.13205E-01	0.3796219E+04	
(1S) 10D2D1.5	0.50077E+16	0.79499E-01	0.64181E-02	0.3761520E+04	
(1S) 8S2SC.5	0.50261E+16	0.86153E-02	0.69808E-03	0.3747704E+04	
(1S) 8D2D1.5	0.50608E+16	0.10186E+00	0.83102E-02	0.3722038E+04	
(1S) 9S2SC.5	0.51045E+16	0.56539E-02	0.46527E-03	0.3690173E+04	
(1S) 9D2D1.5	0.51286E+16	0.67520E-01	0.55826E-02	0.3672825E+04	
(1S) 10S2SO.5	0.51601E+16	0.39438E-02	0.32808E-03	0.3650434E+04	
(1S) 11S2SC.5	0.52000E+16	0.28441E-02	0.23843E-03	0.3622401E+04	
(1S) 11D2D1.5	0.52128E+16	0.33174E-01	0.27878E-02	0.3613500E+04	
(1S) 12D2D1.5	0.52405E+16	0.26581E-01	0.22457E-02	0.3594407E+04	

## INTERACTIONS -- QUADRUPOLE -

0.53200E+16	0.69371E+02
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3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		35250.5	27206.000	2.596	43467.000	116.834	116.396

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(1S)	2P2P0.5	0.23173E+16	0.29443E+01	0.10999E+00	0.8128758E+04
(1S)	2P2P1.5	0.23173E+16	0.58886E+01	0.10999E+00	0.8128758E+04
(1S)	3P2P0.5	0.70053E+15	0.35806E+02	0.40438E+00	0.2688895E+05
(1S)	3P2P1.5	0.70053E+15	0.71612E+02	0.80875E+00	0.2688895E+05
(1S)	4P2P0.5	0.17450E+16	0.47929E-03	0.13484E-04	0.1079447E+05
(1S)	4P2P1.5	0.17450E+16	0.95859E-03	0.26967E-04	0.1079447E+05
(1S)	5P2P0.5	0.22246E+16	0.11895E-01	0.42659E-03	0.8467398E+04
(1S)	5P2P1.5	0.22246E+16	0.23789E-01	0.85317E-03	0.8467398E+04
(1S)	6P2P0.5	0.24836E+16	0.95733E-02	0.38331E-03	0.7584375E+04
(1S)	6P2P1.5	0.24836E+16	0.19147E-01	0.76661E-03	0.7584375E+04
(1S)	7P2P0.5	0.26392E+16	0.67365E-02	0.28662E-03	0.7137246E+04
(1S)	7P2P1.5	0.26392E+16	0.13473E-01	0.57324E-03	0.7137246E+04
(1S)	8P2P0.5	0.27398E+16	0.49924E-02	0.22051E-03	0.6875215E+04
(1S)	8P2P1.5	0.27398E+16	0.99847E-02	0.44102E-03	0.6875215E+04
(1S)	9P2P0.5	0.28089E+16	0.33363E-02	0.15108E-03	0.6706008E+04
(1S)	9P2P1.5	0.28089E+16	0.66725E-02	0.30216E-03	0.6706008E+04
(1S)	10P2P0.5	0.28581E+16	0.25481E-02	0.11741E-03	0.6590652E+04
(1S)	10P2P1.5	0.28581E+16	0.50962E-02	0.23481E-03	0.6590652E+04
(1S)	11P2P0.5	0.28940E+16	0.25975E-02	0.12119E-03	0.6508719E+04
(1S)	11P2P1.5	0.28940E+16	0.51950E-02	0.24239E-03	0.6508719E+04
(1S)	12P2P0.5	0.29221E+16	0.14444E-02	0.68043E-04	0.6446203E+04
(1S)	12P2P1.5	0.29221E+16	0.28888E-02	0.13609E-03	0.6446203E+04
(1S)	13P2P0.5	0.29436E+16	0.11465E-02	0.54405E-04	0.6399180E+04
(1S)	13P2P1.5	0.29436E+16	0.22929E-02	0.10881E-03	0.6399180E+04
(1S)	14P2P0.5	0.29605E+16	0.10357E-02	0.49433E-04	0.6362535E+04
(1S)	14P2P1.5	0.29605E+16	0.20714E-02	0.98866E-04	0.6362535E+04
(1S)	15P2P0.5	0.29743E+16	0.82818E-03	0.39711E-04	0.6333121E+04
(1S)	15P2P1.5	0.29743E+16	0.16563E-02	0.79421E-04	0.6333121E+04
(1S)	16P2P0.5	0.29854E+16	0.88417E-03	0.42554E-04	0.6309543E+04
(1S)	16P2P1.5	0.29854E+16	0.17683E-02	0.85108E-04	0.6309543E+04
(1S)	17P2P0.5	0.29948E+16	0.58689E-03	0.28336E-04	0.6289703E+04
(1S)	17P2P1.5	0.29948E+16	0.11738E-02	0.56671E-04	0.6289703E+04
(1S)	18P2P0.5	0.30027E+16	0.33112E-03	0.16029E-04	0.6273129E+04
(1S)	18P2P1.5	0.30027E+16	0.66225E-03	0.32058E-04	0.6273129E+04

ORIGINAL PAGE IS  
OF POOR QUALITY

A - SEQ. NUM.

PR	FE	DFSIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(15)		3P2P0.5	30925.000	2.955	43487.000	163.748	163.594

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(15)	25250.5	0.59252E+16	0.14607E-01	0.13718E-02	0.3233630E+04
(15)	35250.5	0.70053E+15	0.35806E+02	0.40438E+00	0.2688895E+05
(15)	30201.5	0.67433E+14	0.68534E+02	0.74506E-01	0.2793296E+06
(15)	45250.5	0.76985E+15	0.17967E+02	0.22299E+00	0.2446782E+05
(15)	40201.5	0.10733E+16	0.30225E+02	0.52299E+00	0.1755002E+05
(15)	55250.5	0.13890E+16	0.11576E+01	0.25921E-01	0.1356116E+05
(15)	50201.5	0.15388E+16	0.52457E+01	0.13013E+00	0.1224140E+05
(15)	65250.5	0.17077E+16	0.32237E+00	0.88721E-02	0.1103387E+05
(15)	60201.5	0.17917E+16	0.18820E+01	0.54362E-01	0.1051304E+05
(15)	75250.5	0.18918E+16	0.14004E+00	0.42709E-02	0.9957184E+04
(15)	70201.5	0.19441E+16	0.91230E+00	0.28593E-01	0.9680980E+04
(15)	100201.5	0.19899E+16	0.95539E-01	0.30649E-02	0.9466109E+04
(15)	85250.5	0.20083E+16	0.75226E-01	0.24355E-02	0.9379102E+04
(15)	80201.5	0.20430E+16	0.51987E+00	0.17123E-01	0.9219988E+04
(15)	95250.5	0.20867E+16	0.45757E-01	0.15391E-02	0.9026898E+04
(15)	90201.5	0.21108E+16	0.32767E+00	0.11150E-01	0.8923789E+04
(15)	105250.5	0.21423E+16	0.37454E-01	0.10518E-02	0.8792754E+04
(15)	115250.5	0.21822E+16	0.21082E-01	0.74168E-03	0.8631848E+04
(15)	110201.5	0.21950E+16	0.15530E+00	0.54978E-02	0.8581480E+04
(15)	120201.5	0.22227E+16	0.11721E+00	0.42001E-02	0.8474574E+04

INTERACTIONS -- QUADRUPOLE -

0.30178E+16	0.11161E+05
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5 - SEQ. NUM.

PR	EE	OFFSG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		30201.5	31283.000	2.998	43487.000	125.537	119.473

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

# L VAC

(1S)	2P2P0.5	0.30852E+15	0.64788E+01	0.64449E+00	0.6105375E+04
(1S)	2P2P1.5	0.30852E+16	0.12758E+01	0.64449E-01	0.6105375E+04
(1S)	3P2P0.5	0.67435E+14	0.34267E+02	0.74506E-01	0.2793296E+05
(1S)	3P2P1.5	0.67435E+14	0.68534E+01	0.74506E-02	0.2793296E+06
(1S)	4P2P0.5	0.97705E+15	0.95909E+00	0.15091E-01	0.1927896E+05
(1S)	4P2P1.5	0.97705E+15	0.19162E+00	0.30183E-02	0.1927896E+05
(1S)	4F2F2.5	0.10072E+15	0.62535E+02	0.10154E+01	0.1873207E+05
(1S)	5P2P0.5	0.14566E+16	0.12289E+00	0.28857E-02	0.1293159E+05
(1S)	5P2P1.5	0.14566E+16	0.24577E-01	0.57715E-03	0.1293159E+05
(1S)	5F2F2.5	0.14732E+16	0.66390E+01	0.15768E+00	0.1278609E+05
(1S)	6P2P0.5	0.17156E+16	0.39432E-01	0.10905E-02	0.1097936E+05
(1S)	6P2P1.5	0.17156E+16	0.78863E-02	0.21912E-03	0.1097936E+05
(1S)	7P2P0.5	0.18712E+16	0.18086E-01	0.54558E-03	0.1096644E+05
(1S)	7P2P1.5	0.18712E+16	0.36171E-02	0.10912E-03	0.1096644E+05
(1S)	8P2P0.5	0.19713E+16	0.10133E-01	0.32211E-03	0.9552922E+04
(1S)	8P2P1.5	0.19713E+16	0.20266E-02	0.64422E-04	0.9552922E+04
(1S)	9P2P0.5	0.20407E+16	0.61186E-02	0.20132E-03	0.9229348E+04
(1S)	9P2P1.5	0.20407E+16	0.12237E-02	0.40264E-04	0.9229348E+04
(1S)	10P2P0.5	0.20901E+16	0.41156E-02	0.13968E-03	0.9012254E+04
(1S)	10P2P1.5	0.20901E+16	0.82313E-03	0.27736E-04	0.9012254E+04
(1S)	11P2P0.5	0.21261E+16	0.31996E-02	0.10967E-03	0.8859750E+04
(1S)	11P2P1.5	0.21261E+16	0.63991E-03	0.21933E-04	0.8859750E+04
(1S)	12P2P0.5	0.21541E+16	0.20960E-02	0.72789E-04	0.8744312E+04
(1S)	12P2P1.5	0.21541E+16	0.41920E-03	0.14558E-04	0.8744312E+04
(1S)	13P2P0.5	0.21756E+16	0.15882E-02	0.55704E-04	0.8658008E+04
(1S)	13P2P1.5	0.21756E+16	0.31764E-03	0.11141E-04	0.8658008E+04
(1S)	14P2P0.5	0.21926E+16	0.12834E-02	0.45365E-04	0.8591062E+04
(1S)	14P2P1.5	0.21926E+16	0.25668E-03	0.90731E-05	0.8591062E+04
(1S)	15P2P0.5	0.22063E+16	0.10114E-02	0.35974E-04	0.8537520E+04
(1S)	15P2P1.5	0.22063E+16	0.20228E-03	0.71948E-05	0.8537520E+04
(1S)	16P2P0.5	0.22174E+16	0.87626E-03	0.32040E-04	0.8494730E+04
(1S)	16P2P1.5	0.22174E+16	0.17925E-03	0.64080E-05	0.8494730E+04
(1S)	17P2P0.5	0.22269E+16	0.67608E-03	0.24271E-04	0.8458805E+04
(1S)	17P2P1.5	0.22269E+16	0.13522E-03	0.48543E-05	0.8458805E+04
(1S)	18P2P0.5	0.22348E+16	0.49036E-03	0.17667E-04	0.8428859E+04
(1S)	18P2P1.5	0.22348E+16	0.98073E-04	0.35333E-05	0.8428859E+04

## 6 - SEQ. NUM.

P2 FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(15)	45250.5	35012.000	3.597	4.7487.000	425.189	424.808

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA***2	F	W L VAC
(15) 2P2PC.5	0.37876E+16	0.20786E+00	0.12692E-01	0.4973145E+04
(15) 2P2PI.5	0.37876E+16	0.41571E+00	0.12692E-01	0.4973145E+04
(15) 3P2PI.5	0.76985E+15	0.17967E+02	0.22299E+00	0.2446782E+05
(15) 7P2PI.5	0.76985E+15	0.35935E+02	0.22299E+00	0.2446782E+05
(15) 4P2PC.5	0.27464E+15	0.12335E+03	0.54613E+00	0.6858706E+05
(15) 4P2PI.5	0.27464E+15	0.24670E+03	0.10923E+01	0.6854706E+05
(15) 5P2PC.5	0.75421E+15	0.26483E-01	0.32201E-03	0.2497502E+05
(15) 5P2PI.5	0.75421E+15	0.52966E-01	0.64402E-03	0.2497502E+05
(15) 6P2PC.5	0.10132E+16	0.63751E-02	0.10413E-03	0.1859081E+05
(15) 6P2PI.5	0.10132E+16	0.12750E-01	0.20827E-03	0.1859081E+05
(15) 7P2PC.5	0.11688E+16	0.94721E-02	0.17848E-03	0.1611604E+05
(15) 7P2PI.5	0.11688E+16	0.18944E-01	0.35695E-03	0.1611604E+05
(15) 8P2PC.5	0.12694E+16	0.86542E-02	0.17710E-03	0.1483900E+05
(15) 8P2PI.5	0.12694E+16	0.17308E-01	0.35420E-03	0.1483900E+05
(15) 9P2PC.5	0.13385E+16	0.58930E-02	0.12715E-03	0.1407261E+05
(15) 9P2PI.5	0.13385E+16	0.11786E-01	0.25433E-03	0.1407261E+05
(15) 10P2PC.5	0.13477E+16	0.47138E-02	0.10545E-03	0.1357404E+05
(15) 10P2PI.5	0.13477E+16	0.94276E-02	0.21091E-03	0.1357404E+05
(15) 11P2PC.5	0.14237E+16	0.54767E-02	0.12570E-03	0.1323101E+05
(15) 11P2PI.5	0.14237E+16	0.10953E-01	0.25139E-03	0.1323101E+05
(15) 12P2PC.5	0.14517E+16	0.26952E-02	0.63079E-04	0.1297521E+05
(15) 12P2PI.5	0.14517E+16	0.53904E-02	0.12616E-03	0.1297521E+05
(15) 13P2PC.5	0.14732E+16	0.21560E-02	0.51205E-04	0.1278609E+05
(15) 13P2PI.5	0.14732E+16	0.43120E-02	0.10241E-03	0.1278609E+05
(15) 14P2PC.5	0.14902E+16	0.20407E-02	0.49024E-04	0.1264062E+05
(15) 14P2PI.5	0.14902E+16	0.40813E-02	0.98047E-04	0.1264062E+05
(15) 15P2PC.5	0.15039E+16	0.16234E-02	0.39360E-04	0.1252505E+05
(15) 15P2PI.5	0.15039E+16	0.32468E-02	0.78719E-04	0.1252505E+05
(15) 16P2PC.5	0.15150E+16	0.18797E-02	0.45911E-04	0.1243317E+05
(15) 16P2PI.5	0.15150E+16	0.37594E-02	0.91822E-04	0.1243317E+05
(15) 17P2PC.5	0.15244E+16	0.11632E-02	0.28585E-04	0.1235636E+05
(15) 17P2PI.5	0.15244E+16	0.23263E-02	0.57172E-04	0.1235636E+05
(15) 18P2PC.5	0.15324E+16	0.56735E-03	0.14016E-04	0.1229256E+05
(15) 18P2PI.5	0.15324E+16	0.11347E-02	0.28031E-04	0.1229256E+05

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## 7 - SEQ. NUM.

PR (1S)	EE	DPSIG 4P2P0.5	LEVEL 36470.000	N EFF 3.954	S. LIMIT 43487.000	RAA**2 571.704	S. RAA**2 562.506
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INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	# L VAC
(1S)	2S2SC.5	0.68697E+16	0.11596E-01	0.12843E-02	0.2741979E+04
(1S)	3S2SC.5	0.17450E+16	0.47929E-03	0.13484E-04	0.1079447E+05
(1S)	3D2D1.5	0.97705E+15	0.19162E+01	0.15091E-01	0.1927896E+05
(1S)	4S2SC.5	0.27464E+15	0.12135E+03	0.54613E+00	0.6858706E+05
(1S)	4D2D1.5	0.28820E+14	0.29058E+03	0.13501E+00	0.6535947E+06
(1S)	5S2SC.5	0.34452E+15	0.62487E+02	0.33595E+00	0.5467468E+05
(1S)	5D2D1.5	0.49427E+15	0.61764E+02	0.49215E+00	0.3812975E+05
(1S)	6S2SC.5	0.66267E+15	0.36172E+01	0.38643E-01	0.2842524E+05
(1S)	6D2D1.5	0.74724E+15	0.10994E+02	0.13244E+00	0.2520796E+05
(1S)	7S2SC.5	0.84727E+15	0.97098E+00	0.13263E-01	0.2223210E+05
(1S)	7D2D1.5	0.89967E+15	0.39987E+01	0.57995E-01	0.2091802E+05
(1S)	10D2D1.5	0.34540E+15	0.43257E-01	0.65930E-03	0.1992429E+05
(1S)	8S2SC.5	0.96386E+15	0.41369E+00	0.64283E-02	0.1954270E+05
(1S)	8D2D1.5	0.99852E+15	0.19571E+01	0.31505E-01	0.1886436E+05
(1S)	9S2SC.5	0.10422E+16	0.22012E+00	0.36985E-02	0.1807337E+05
(1S)	9D2D1.5	0.10663E+16	0.11252E+01	0.19343E-01	0.1756472E+05
(1S)	11S2SC.5	0.10978E+16	0.13483E+00	0.23863E-02	0.1715854E+05
(1S)	11S2SC.5	0.11377E+16	0.87838E-01	0.16111E-02	0.1655629E+05
(1S)	11D2D1.5	0.11505E+16	0.48734E+00	0.90394E-02	0.1637197E+05
(1S)	12D2D1.5	0.11782E+16	0.34857E+00	0.66210E-02	0.1598721E+05

## INTERACTIONS -- QUADRUPOLE -

0.40623E+16	0.99993E+05
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A - SEQ. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		40201.5	36623.000	3.997	43487.000	502.495	468.586
INTERACTIONS -- DIPOLE -							
DESIGNATION		W		RAA**2	F	W L VAC	
(1S)	2P2P0.5	0.40911E+16	0.93876E+00	0.12383E+00	0.4604262E+04		
(1S)	2P2P1.5	0.40911E+16	0.18775E+00	0.12383E-01	0.4604262E+04		
(1S)	3P2P0.5	0.10733E+16	0.15112E+02	0.52299E+00	0.1755002E+05		
(1S)	3P2P1.5	0.10733E+16	0.30225E+01	0.52299E-01	0.1755002E+05		
(1S)	4P2P0.5	0.28820E+14	0.14529E+03	0.13501E+00	0.6535947E+06		
(1S)	4P2P1.5	0.28820E+14	0.29058E+02	0.13501E-01	0.6535947E+06		
(1S)	4F2F2.5	0.13186E+13	0.15132E+03	0.32166E-02	0.1428571E+08		
(1S)	5P2P0.5	0.45076E+15	0.50464E+01	0.36671E-01	0.4178855E+05		
(1S)	5P2P1.5	0.45076E+15	0.10093E+01	0.73342E-02	0.4178855E+05		
(1S)	5F2F2.5	0.46733E+15	0.11630E+03	0.87618E+00	0.4030632E+05		
(1S)	6P2P0.5	0.70976E+15	0.63852E+00	0.73061E-02	0.2653928E+05		
(1S)	6P2P1.5	0.70976E+15	0.12770E+00	0.14612E-02	0.2653928E+05		
(1S)	7P2P0.5	0.86535E+15	0.20220E+00	0.28208E-02	0.2176752E+05		
(1S)	7P2P1.5	0.86535E+15	0.40440E-01	0.56417E-03	0.2176752E+05		
(1S)	8P2P0.5	0.96594E+15	0.93061E-01	0.14492E-02	0.1950078E+05		
(1S)	8P2P1.5	0.96594E+15	0.18612E-01	0.28983E-03	0.1950078E+05		
(1S)	9P2P0.5	0.10351E+16	0.50060E-01	0.83533E-03	0.1819836E+05		
(1S)	9P2P1.5	0.10351E+16	0.10012E-01	0.16707E-03	0.1819836E+05		
(1S)	10P2P0.5	0.10842E+16	0.31124E-01	0.54403E-03	0.1737318E+05		
(1S)	10P2P1.5	0.10842E+16	0.62248E-02	0.10881E-03	0.1737318E+05		
(1S)	11P2P0.5	0.11202E+16	0.22660E-01	0.40922E-03	0.1691520E+05		
(1S)	11P2P1.5	0.11202E+16	0.45320E-02	0.81845E-04	0.1691520E+05		
(1S)	12P2P0.5	0.11483E+16	0.14455E-01	0.26759E-03	0.1640420E+05		
(1S)	12P2P1.5	0.11483E+16	0.28911E-02	0.53519E-04	0.1640420E+05		
(1S)	13P2P0.5	0.11697E+16	0.10631E-01	0.20049E-03	0.1610306E+05		
(1S)	13P2P1.5	0.11697E+16	0.21263E-02	0.40997E-04	0.1610306E+05		
(1S)	14P2P0.5	0.11867E+16	0.83570E-02	0.15989E-03	0.1587302E+05		
(1S)	14P2P1.5	0.11867E+16	0.16714E-02	0.31976E-04	0.1587302E+05		
(1S)	15P2P0.5	0.12005E+16	0.64724E-02	0.12526E-03	0.1559120E+05		
(1S)	15P2P1.5	0.12005E+16	0.12945E-02	0.25052E-04	0.1559120E+05		
(1S)	16P2P0.5	0.12116E+16	0.55908E-02	0.10920E-03	0.1554726E+05		
(1S)	16P2P1.5	0.12116E+16	0.11182E-02	0.21840E-04	0.1554726E+05		
(1S)	17P2P0.5	0.12210E+16	0.42087E-02	0.92844E-04	0.1542734E+05		
(1S)	17P2P1.5	0.12210E+16	0.84174E-03	0.16569E-04	0.1542734E+05		
(1S)	18P2P0.5	0.12287E+16	0.30725E-02	0.60872E-04	0.1532802E+05		
(1S)	18P2P1.5	0.12287E+16	0.61451E-03	0.12174E-04	0.1532802E+05		

9 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		4F2F2.5	36630.000	3.999	43487.000	359.715	154.270

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	30201.5	0.10072E+16	0.41690E+02	0.10154E+01	0.1870207E+05
(1S)	30202.5	0.10072E+16	0.29779E+01	0.48353E-01	0.1870207E+05
(1S)	40201.5	0.13186E+13	0.10048E+03	0.32165E-02	0.1428571E+08
(1S)	40202.5	0.13186E+13	0.72058E+01	0.15317E-03	0.1428571E+08
(1S)	50201.5	0.46413E+15	0.11476E+01	0.85872E-02	0.4058441E+05
(1S)	50202.5	0.46413E+15	0.81975E-01	0.61337E-03	0.4058441E+05
(1S)	60201.5	0.71711E+15	0.13229E+00	0.15294E-02	0.2626740E+05
(1S)	60202.5	0.71711E+15	0.94494E-02	0.10924E-03	0.2626740E+05
(1S)	70201.5	0.86949E+15	0.39324E-01	0.55122E-03	0.2166378E+05
(1S)	70202.5	0.86949E+15	0.28089E-02	0.39373E-04	0.2166378E+05
(1S)	100201.5	0.91527E+15	0.63215E-01	0.93277E-03	0.2058036E+05
(1S)	100202.5	0.91527E+15	0.45154E-02	0.66627E-04	0.2058036E+05
(1S)	80201.5	0.96839E+15	0.17237E-01	0.26910E-03	0.1945146E+05
(1S)	80202.5	0.96839E+15	0.12312E-02	0.19221E-04	0.1945146E+05
(1S)	90201.5	0.10362E+16	0.92798E-02	0.15502E-03	0.1817851E+05
(1S)	90202.5	0.10362E+16	0.66284E-03	0.11073E-04	0.1817851E+05
(1S)	110201.5	0.11204E+16	0.40505E-02	0.73161E-04	0.1681237E+05
(1S)	110202.5	0.11204E+16	0.28932E-03	0.52258E-05	0.1681237E+05
(1S)	120201.5	0.11481E+16	0.24263E-02	0.44907E-04	0.1640689E+05
(1S)	120202.5	0.11481E+16	0.17331E-03	0.32077E-05	0.1640689E+05



PR FE	DFSIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(15)	55250.5	38299.000	4.598	43487.000	1127.934	1127.668

INTERACTIONS -- DIPOL -					
DESIGNATION	W	RAA***2	F	W L VAC	
(15)	2P2P1.5	0.44068E+16	0.59995E-01	0.42623E-02	0.4274414E+04
(15)	2P2P1.5	0.44068E+16	0.11909E+00	0.42623E-02	0.4274414E+04
(15)	3P2P0.5	0.13890E+16	0.11576E+01	0.25921E-01	0.1356116E+05
(15)	3P2P1.5	0.13890E+16	0.23151E+01	0.25921E-01	0.1356116E+05
(15)	4P2P0.5	0.34452E+15	0.60487E+02	0.33595E+00	0.5467468E+05
(15)	4P2P1.5	0.34452E+15	0.12097E+03	0.33595E+00	0.5467468E+05
(15)	5P2P0.5	0.13506E+15	0.31396E+03	0.68359E+00	0.1394700E+06
(15)	5P2P1.5	0.13506E+15	0.62792E+03	0.13672E+01	0.1394700E+06
(15)	6P2P0.5	0.39406E+15	0.17721E+00	0.11258E-02	0.4780114E+05
(15)	6P2P1.5	0.39406E+15	0.35443E+00	0.22515E-02	0.4780114E+05
(15)	7P2P0.5	0.54965E+15	0.66038E-03	0.58517E-05	0.3427005E+05
(15)	7P2P1.5	0.54965E+15	0.13208E-02	0.11703E-04	0.3427005E+05
(15)	8P2P0.5	0.65024E+15	0.81382E-02	0.85311E-04	0.2896871E+05
(15)	8P2P1.5	0.65024E+15	0.16276E-01	0.17062E-03	0.2896871E+05
(15)	9P2P0.5	0.71937E+15	0.70148E-02	0.81352E-04	0.2618486E+05
(15)	9P2P1.5	0.71937E+15	0.14030E-01	0.16270E-03	0.2618486E+05
(15)	10P2P0.5	0.76853E+15	0.65610E-02	0.81290E-04	0.2450980E+05
(15)	10P2P1.5	0.76853E+15	0.13122E-01	0.16258E-03	0.2450980E+05
(15)	11P2P0.5	0.80451E+15	0.94417E-02	0.12246E-03	0.2341372E+05
(15)	11P2P1.5	0.80451E+15	0.18883E-01	0.24491E-03	0.2341372E+05
(15)	12P2P0.5	0.83257E+15	0.39873E-02	0.53518E-04	0.2262443E+05
(15)	12P2P1.5	0.83257E+15	0.79745E-02	0.10704E-03	0.2262443E+05
(15)	13P2P0.5	0.85405E+15	0.32544E-02	0.44808E-04	0.2205558E+05
(15)	13P2P1.5	0.85405E+15	0.65088E-02	0.89615E-04	0.2205558E+05
(15)	14P2P0.5	0.87100E+15	0.32818E-02	0.46083E-04	0.2152630E+05
(15)	14P2P1.5	0.87100E+15	0.65636E-02	0.92165E-04	0.2152630E+05
(15)	15P2P0.5	0.88475E+15	0.26010E-02	0.37099E-04	0.2129018E+05
(15)	15P2P1.5	0.88475E+15	0.52020E-02	0.74198E-04	0.2129018E+05
(15)	16P2P0.5	0.89586E+15	0.32981E-02	0.47633E-04	0.2102607E+05
(15)	16P2P1.5	0.89586E+15	0.65961E-02	0.95265E-04	0.2102607E+05
(15)	17P2P0.5	0.90528E+15	0.18915E-02	0.27605E-04	0.2080732E+05
(15)	17P2P1.5	0.90528E+15	0.37829E-02	0.55209E-04	0.2080732E+05
(15)	18P2P0.5	0.91319E+15	0.77648E-03	0.11431E-04	0.2062706E+05
(15)	18P2P1.5	0.91319E+15	0.15530E-02	0.22863E-04	0.2062706E+05

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## 11 - SFQ. NUM.

PR	EE	DFSIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		5P2P0.5	39016.000	4.953	43487.000	1443.126	1426.920

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(15)	2S251.5	0.73493E+16	0.65452E-02	0.77547E-03	0.2563051E+04
(15)	3S250.5	0.22246E+16	0.11895E-01	0.42659E-03	0.8467398E+04
(15)	3D201.5	0.14566E+16	0.24577E+00	0.28857E-02	0.1293159E+05
(15)	4S250.5	0.75421E+15	0.26483E-01	0.32201E-03	0.2497502E+05
(15)	4D201.5	0.45076E+15	0.10093E+02	0.36671E-01	0.4178855E+05
(15)	5S250.5	0.13506E+15	0.31396E+03	0.68359E+00	0.1394700E+06
(15)	5D201.5	0.14692E+14	0.79167E+03	0.18752E+00	0.1282051E+07
(15)	6S250.5	0.18309E+15	0.15177E+03	0.44799E+00	0.1028806E+06
(15)	6D201.5	0.26767E+15	0.11331E+03	0.48895E+00	0.7037294E+05
(15)	7S250.5	0.36767E+15	0.86043E+01	0.51003E-01	0.5122951E+05
(15)	7D201.5	0.42505E+15	0.20111E+02	0.13620E+00	0.4484305E+05
(15)	8S250.5	0.46583E+15	0.76927E-01	0.57770E-03	0.4043671E+05
(15)	8D201.5	0.48429E+15	0.22370E+01	0.17465E-01	0.3889537E+05
(15)	9S250.5	0.51895E+15	0.72930E+01	0.61014E-01	0.3629764E+05
(15)	9D201.5	0.56265E+15	0.93538E+00	0.84845E-02	0.3347841E+05
(15)	10S250.5	0.58676E+15	0.35661E+01	0.33733E-01	0.3210273E+05
(15)	10D201.5	0.61821E+15	0.49825E+00	0.49658E-02	0.3046922E+05
(15)	11S250.5	0.65815E+15	0.29607E+00	0.31414E-02	0.2862049E+05
(15)	11D201.5	0.67096E+15	0.13127E+01	0.14264E-01	0.2807411E+05
(15)	12D201.5	0.69865E+15	0.86032E+00	0.99828E-02	0.2696144E+05

## INTERACTIONS -- QUADRUPOLE -

0.45419E+16	0.56152E+06
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PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S: RAA**2
(1S)	502P1.5	39094.000	4.997	43487.000	1346.136	1083.523

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(1S)	2P2P2.5	0.45566E+16	0.31671E+00	0.46531E-01	0.4133937E+C4
(1S)	2P2P1.5	0.45566E+16	0.63343E-01	0.46531E-02	0.4133937E+C4
(1S)	3P2P1.5	0.15388E+16	0.26229E+01	0.13013E+00	0.1224140E+C5
(1S)	3P2P1.5	0.15388E+16	0.52458E+00	0.13013E-01	0.1224140E+C5
(1S)	4P2P0.5	0.49427E+15	0.30882E+02	0.49216E+00	0.3810975E+05
(1S)	4P2P1.5	0.49427E+15	0.61765E+01	0.49216E-01	0.3810975E+05
(1S)	4F2F2.5	0.46413E+15	0.17215E+01	0.85872E-02	0.4058441E+05
(1S)	5P2P0.5	0.14692E+14	0.39584E+03	0.18752E+00	0.1282051E+C7
(1S)	5P2P1.5	0.14692E+14	0.79167E+02	0.18752E-01	0.1282051E+C7
(1S)	5F2F2.5	0.18837E+13	0.54346E+03	0.16503E-01	0.1000000E+08
(1S)	6P2P0.5	0.24431E+15	0.15673E+02	0.61728E-01	0.7710100E+05
(1S)	6P2P1.5	0.24431E+15	0.31345E+01	0.12346E-01	0.7710100E+05
(1S)	7P2P0.5	0.39990E+15	0.19501E+01	0.12572E-01	0.4710315E+05
(1S)	7P2P1.5	0.39990E+15	0.39902E+00	0.25144E-02	0.4710315E+05
(1S)	8P2P0.5	0.52049E+15	0.61557E+00	0.49668E-02	0.3763643E+05
(1S)	8P2P1.5	0.52049E+15	0.12311E+00	0.99335E-03	0.3753643E+05
(1S)	9P2P0.5	0.56962E+15	0.27115E+00	0.24909E-02	0.3306878E+05
(1S)	9P2P1.5	0.56962E+15	0.54230E-01	0.49800E-03	0.3306878E+05
(1S)	10P2P0.5	0.61978E+15	0.14896E+00	0.14860E-02	0.3044140E+05
(1S)	10P2P1.5	0.61978E+15	0.29793E-01	0.29720E-03	0.3044140E+05
(1S)	11P2P0.5	0.65476E+15	0.99220E-01	0.10473E-02	0.2876870E+05
(1S)	11P2P1.5	0.65476E+15	0.19844E-01	0.20947E-03	0.2876870E+05
(1S)	12P2P0.5	0.68282E+15	0.60196E-01	0.66264E-03	0.2758620E+05
(1S)	12P2P1.5	0.68282E+15	0.12039E-01	0.13253E-03	0.2758620E+05
(1S)	13P2P0.5	0.70430E+15	0.42419E-01	0.48164E-03	0.2674512E+05
(1S)	13P2P1.5	0.70430E+15	0.84838E-02	0.96328E-04	0.2674512E+05
(1S)	14P2P0.5	0.72125E+15	0.32166E-01	0.37424E-03	0.2611648E+05
(1S)	14P2P1.5	0.72125E+15	0.64372E-02	0.74849E-04	0.2611648E+05
(1S)	15P2P0.5	0.73500E+15	0.24315E-01	0.28812E-03	0.2562788E+05
(1S)	15P2P1.5	0.73500E+15	0.48631E-02	0.57624E-04	0.2562788E+05
(1S)	16P2P0.5	0.74611E+15	0.20443E-01	0.24589E-03	0.2524615E+05
(1S)	16P2P1.5	0.74611E+15	0.40885E-02	0.49179E-04	0.2524615E+05
(1S)	17P2P0.5	0.75553E+15	0.15231E-01	0.18554E-03	0.2493144E+05
(1S)	17P2P1.5	0.75553E+15	0.30465E-02	0.37108E-04	0.2493144E+05
(1S)	18P2P0.5	0.76344E+15	0.11084E-01	0.13642E-03	0.2467308E+05
(1S)	18P2P1.5	0.76344E+15	0.22169E-02	0.27284E-04	0.2467308E+05

ORIGINAL PAGE IS  
OF POOR QUALITY

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)	65259.5	39938.000	5.599	43487.000	2472.101	2473.051

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(15)	2P2P0.5	0.47249E+16	0.26187E-01	0.20100E-02	0.3986605E+04
(15)	2P2P1.5	0.47249E+16	0.52774E-01	0.20100E-02	0.3986605E+04
(15)	3P2P0.5	0.17072E+16	0.32237E+00	0.88721E-02	0.1103387E+05
(15)	3P2P1.5	0.17072E+16	0.64473E+00	0.88721E-02	0.1103387E+05
(15)	4P2P0.5	0.46267E+15	0.36172E+01	0.38643E-01	0.2842524E+05
(15)	4P2P1.5	0.66267E+15	0.72343E+01	0.38643E-01	0.2842524E+05
(15)	5P2P0.5	0.13309E+15	0.15177E+03	0.44799E+00	0.1028806E+06
(15)	5P2P1.5	0.18309E+15	0.30355E+03	0.44799E+00	0.1028806E+06
(15)	6P2P0.5	0.75911E+14	0.66802E+03	0.81752E+00	0.2481389E+06
(15)	6P2P1.5	0.75911E+14	0.13360E+04	0.16350E+01	0.2481389E+06
(15)	7P2P0.5	0.23159E+15	0.54026E+00	0.20163E-02	0.8136694E+05
(15)	7P2P1.5	0.23159E+15	0.10805E+01	0.40326E-02	0.8136694E+05
(15)	8P2P0.5	0.33209E+15	0.82023E-03	0.43916E-05	0.5672150E+05
(15)	8P2P1.5	0.33209E+15	0.16406E-02	0.87832E-05	0.5672150E+05
(15)	9P2P0.5	0.40122E+15	0.28700E-02	0.18564E-04	0.4694836E+05
(15)	9P2P1.5	0.40122E+15	0.57400E-02	0.37127E-04	0.4694836E+05
(15)	10P2P0.5	0.45039E+15	0.63524E-02	0.46123E-04	0.4182350E+05
(15)	10P2P1.5	0.45039E+15	0.12705E-01	0.92246E-04	0.4182350E+05
(15)	11P2P0.5	0.48636E+15	0.14499E-01	0.11368E-03	0.3872966E+05
(15)	11P2P1.5	0.48636E+15	0.28998E-01	0.22737E-03	0.3872966E+05
(15)	12P2P0.5	0.51443E+15	0.50192E-02	0.41626E-04	0.3661662E+05
(15)	12P2P1.5	0.51443E+15	0.10039E-01	0.83251E-04	0.3661662E+05
(15)	13P2P0.5	0.53590E+15	0.43191E-02	0.37315E-04	0.3514938E+05
(15)	13P2P1.5	0.53590E+15	0.86382E-02	0.74629E-04	0.3514938E+05
(15)	14P2P0.5	0.55245E+15	0.47851E-02	0.42649E-04	0.3407155E+05
(15)	14P2P1.5	0.55245E+15	0.95703E-02	0.85298E-04	0.3407155E+05
(15)	15P2P0.5	0.56660E+15	0.37947E-02	0.34663E-04	0.3324468E+05
(15)	15P2P1.5	0.56660E+15	0.75894E-02	0.69325E-04	0.3324468E+05
(15)	16P2P0.5	0.57772E+15	0.53307E-02	0.49648E-04	0.3260515E+05
(15)	16P2P1.5	0.57772E+15	0.10661E-01	0.99297E-04	0.3260515E+05
(15)	17P2P0.5	0.58713E+15	0.28200E-02	0.26693E-04	0.3208213E+05
(15)	17P2P1.5	0.58713E+15	0.56400E-02	0.53185E-04	0.3208213E+05
(15)	18P2P0.5	0.59505E+15	0.94570E-03	0.90721E-05	0.3165559E+05
(15)	18P2P1.5	0.59505E+15	0.18914E-02	0.18144E-04	0.3165559E+05

ORIGINAL PAGE IS  
OF POOR QUALITY

14 - SEQ. NUM.

PR	CE	DESIG	LEVFL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		6P2PC.5	40391.900	5.952	43487.000	3048.959	3031.151

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(15)	252SC.5	0.76083E+16	0.39413E-02	0.48343E-03	0.2475799E+04
(15)	352SC.5	0.24836E+16	0.95733E-02	0.38331E-03	0.7584375E+04
(15)	3D2D1.5	0.17156E+15	0.78863E-01	0.10906E-02	0.1097936E+05
(15)	452SC.5	0.10132E+16	0.63751E-02	0.10413E-03	0.1859081E+05
(15)	4D2D1.5	0.70976E+15	0.12770E+01	0.73061E-02	0.2653928E+05
(15)	552SC.5	0.39406E+15	0.17721E+00	0.11258E-02	0.4780114E+05
(15)	5D2D1.5	0.24421E+15	0.31345E+02	0.61728E-01	0.7710100E+05
(15)	652SC.5	0.75911E+14	0.66802E+03	0.81752E+00	0.2481389E+06
(15)	6D2D1.5	0.86648E+13	0.17341E+04	0.24224E+00	0.2173913E+07
(15)	752SC.5	0.10869E+15	0.31958E+03	0.55995E+00	0.1733102E+06
(15)	7D2D1.5	0.16105E+15	0.19247E+03	0.49973E+00	0.1169591E+06
(15)	10D2D1.5	0.20680E+15	0.81806E+01	0.27275E-01	0.9107462E+05
(15)	852SC.5	0.22528E+15	0.17379E+02	0.63120E-01	0.8361200E+05
(15)	8D2D1.5	0.25994E+15	0.33677E+02	0.14113E+00	0.7246375E+05
(15)	952SC.5	0.30364E+15	0.44020E+01	0.21548E-01	0.6203474E+05
(15)	9D2D1.5	0.32776E+15	0.12099E+02	0.63932E-01	0.5747126E+05
(15)	1052SC.5	0.35921E+15	0.18318E+01	0.10608E-01	0.5243838E+05
(15)	1152SC.5	0.39915E+15	0.94188E+00	0.60608E-02	0.4719207E+05
(15)	11D2D1.5	0.41195E+15	0.34284E+01	0.22769E-01	0.4572473E+05
(15)	12D2D1.5	0.43964E+15	0.21217E+01	0.15038E-01	0.4284490E+05

INTERACTIONS -- QUADRUPOLE -

0.48009E+16	0.23297E+07
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		502D1.5	40437.000	5.997	43487.000	2927.214	1179.802

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	2P2P0.5	0.48095E+16	0.14853E+00	0.23033E-01	0.3916500E+04
(1S)	2P2P1.5	0.48095E+16	0.29705E-01	0.23033E-02	0.3916500E+04
(1S)	3P2P0.5	0.17917E+16	0.94109E+00	0.54362E-01	0.1051304E+05
(1S)	3P2P1.5	0.17917E+16	0.18820E+00	0.54362E-02	0.1051304E+05
(1S)	4P2P0.5	0.74724E+15	0.54968E+01	0.13244E+00	0.2520796E+05
(1S)	4P2P1.5	0.74724E+15	0.10994E+01	0.13244E-01	0.2520796E+05
(1S)	4F2F2.5	0.71711E+15	0.19844E+00	0.15294E-02	0.2626740E+05
(1S)	5P2P0.5	0.26767E+15	0.56655E+02	0.48895E+00	0.7037294E+05
(1S)	5P2P1.5	0.26767E+15	0.11331E+02	0.48895E-01	0.7037294E+05
(1S)	5F2F2.5	0.25109E+15	0.86387E+01	0.23313E-01	0.7501875E+05
(1S)	6P2P0.5	0.86644E+13	0.86706E+03	0.24224E+00	0.2173913E+07
(1S)	6P2P1.5	0.86644E+13	0.17341E+03	0.24224E-01	0.2173913E+07
(1S)	7P2P0.5	0.14692E+15	0.37773E+02	0.89470E-01	0.1282051E+06
(1S)	7P2P1.5	0.14692E+15	0.75545E+01	0.17894E-01	0.1282051E+06
(1S)	8P2P0.5	0.24751E+15	0.46754E+01	0.18656E-01	0.7610350E+05
(1S)	8P2P1.5	0.24751E+15	0.93508E+00	0.37312E-02	0.7610350E+05
(1S)	9P2P0.5	0.31664E+15	0.14090E+01	0.71926E-02	0.5948840E+05
(1S)	9P2P1.5	0.31664E+15	0.28180E+00	0.14385E-02	0.5948840E+05
(1S)	10P2P0.5	0.36581E+15	0.63098E+00	0.37211E-02	0.5149330E+05
(1S)	10P2P1.5	0.36581E+15	0.12620E+00	0.74422E-03	0.5149330E+05
(1S)	11P2P0.5	0.40178E+15	0.36878E+00	0.23887E-02	0.4688232E+05
(1S)	11P2P1.5	0.40178E+15	0.73757E-01	0.47775E-03	0.4688232E+05
(1S)	12P2P0.5	0.42985E+15	0.20664E+00	0.14320E-02	0.4382121E+05
(1S)	12P2P1.5	0.42985E+15	0.41328E-01	0.28640E-03	0.4382121E+05
(1S)	13P2P0.5	0.45132E+15	0.13710E+00	0.99753E-03	0.4173623E+05
(1S)	13P2P1.5	0.45132E+15	0.27420E-01	0.19951E-03	0.4173623E+05
(1S)	14P2P0.5	0.46828E+15	0.92270E-01	0.74942E-03	0.4022526E+05
(1S)	14P2P1.5	0.46828E+15	0.19854E-01	0.14989E-03	0.4022526E+05
(1S)	15P2P0.5	0.48203E+15	0.72509E-01	0.56339E-03	0.3907776E+05
(1S)	15P2P1.5	0.48203E+15	0.14500E-01	0.11268E-03	0.3907776E+05
(1S)	16P2P0.5	0.49314E+15	0.59033E-01	0.46932E-03	0.3819709E+05
(1S)	16P2P1.5	0.49314E+15	0.11807E-01	0.93865E-04	0.3819709E+05
(1S)	17P2P0.5	0.50256E+15	0.43251E-01	0.35042E-03	0.3748126E+05
(1S)	17P2P1.5	0.50256E+15	0.86503E-02	0.70084E-04	0.3748126E+05
(1S)	18P2P0.5	0.51047E+15	0.31161E-01	0.25644E-03	0.3690037E+05
(1S)	18P2P1.5	0.51047E+15	0.62321E-02	0.51287E-04	0.3690037E+05

16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		7P2PD.5	41217.000	6.951	43487.000	5715.500	8460.602

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(1S) 2S2S0.5	0.77638E+16	0.25432E-02	0.31832E-03	0.2426183E+04
(1S) 3S2S1.5	0.26392E+16	0.67365E-02	0.28662E-03	0.7137246E+04
(1S) 3D2D1.5	0.18712E+16	0.36171E-01	0.54558E-03	0.1006644E+05
(1S) 4S2S0.5	0.11688E+16	0.94721E-02	0.17848E-03	0.1611604E+05
(1S) 4D2D1.5	0.86535E+15	0.40440E+00	0.28203E-02	0.2176752E+05
(1S) 5S2S0.5	0.54965E+15	0.66039E-03	0.58517E-05	0.3427005E+05
(1S) 5D2D1.5	0.39990E+15	0.39002E+01	0.12572E-01	0.4710315E+05
(1S) 6S2S0.5	0.23150E+15	0.54026E+00	0.20163E-02	0.8136694E+05
(1S) 6D2D1.5	0.14692E+15	0.75545E+02	0.89470E-01	0.1282051E+06
(1S) 7S2S0.5	0.46903E+14	0.12574E+04	0.95079E+00	0.4016064E+06
(1S) 7D2D1.5	0.54626E+13	0.33134E+04	0.29180E+00	0.3448275E+07
(1S) 10D2D1.5	0.51235E+14	0.27933E+04	0.23072E+01	0.3676470E+06
(1S) 8S2S0.5	0.69695E+14	0.59833E+03	0.67227E+00	0.2702702E+06
(1S) 8D2D1.5	0.10435E+15	0.30795E+03	0.51807E+00	0.1805054E+06
(1S) 9S2S0.5	0.14805E+15	0.31457E+02	0.75083E-01	0.1272264E+06
(1S) 9D2D1.5	0.17217E+15	0.52926E+02	0.14690E+00	0.1094092E+06
(1S) 10S2S0.5	0.20362E+15	0.78726E+01	0.25843E-01	0.9250694E+05
(1S) 11S2S0.5	0.24356E+15	0.31594E+01	0.12405E-01	0.7733950E+05
(1S) 11D2D1.5	0.25636E+15	0.92734E+01	0.38327E-01	0.7347537E+05
(1S) 12D2D1.5	0.28405E+15	0.50951E+01	0.23332E-01	0.6631294E+05

INTERACTIONS -- QUADRUPOLE -

0.49564E+16	0.78553E+07
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17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		9P2P0.5	41751.000	7.949	43487.000	9821.109	11524.109

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	# L VAC
(1S)	2S2S0.5	0.78644E+16	0.17822E-02	0.22595E-03	0.2395152E+04
(1S)	3S2S0.5	0.27398E+16	0.49924E-02	0.22051E-03	0.5875215E+04
(1S)	3D2D1.5	0.19718E+16	0.20266E-01	0.32211E-03	0.9552922E+04
(1S)	4S2S0.5	0.12694E+16	0.86542E-02	0.17710E-03	0.1483900E+05
(1S)	4D2D1.5	0.96594E+15	0.18612E+00	0.14492E-02	0.1950078E+05
(1S)	5S2S0.5	0.65024E+15	0.81382E-02	0.85311E-04	0.2896871E+05
(1S)	5D2D1.5	0.50049E+15	0.12311E+01	0.49668E-02	0.3763643E+05
(1S)	6S2S0.5	0.33204E+15	0.82029E-03	0.43916E-05	0.5672150E+05
(1S)	6D2D1.5	0.24751E+15	0.93507E+01	0.18656E-01	0.7610350E+05
(1S)	7S2S0.5	0.14749E+15	0.11857E+01	0.28192E-02	0.1277139E+06
(1S)	7D2D1.5	0.95124E+14	0.15591E+03	0.11955E+00	0.1980197E+06
(1S)	10D2D1.5	0.49352E+14	0.18317E+04	0.72867E+00	0.3816794E+06
(1S)	8S2S0.5	0.30892E+14	0.21715E+04	0.10814E+01	0.5097561E+06
(1S)	8D2D1.5	0.37673E+13	0.57617E+04	0.34994E+00	0.5000000E+07
(1S)	9S2S0.5	0.47464E+14	0.10211E+04	0.78142E+00	0.3968254E+06
(1S)	9D2D1.5	0.71579E+14	0.46328E+03	0.53461E+00	0.2631579E+06
(1S)	10S2S0.5	0.10304E+15	0.52704E+02	0.87546E-01	0.1828153E+06
(1S)	11S2S0.5	0.14297E+15	0.12822E+02	0.29554E-01	0.1317522E+06
(1S)	11D2D1.5	0.15579E+15	0.28417E+02	0.71366E-01	0.1209189E+06
(1S)	12D2D1.5	0.18347E+15	0.12949E+02	0.38301E-01	0.1026694E+06

INTERACTIONS -- QUADRUPOLE -

0.50570E+16	0.22206E+08
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18 - SEQ. NUM.

PP	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		9D2P1.5	42118.000	8.951	43487.000	15845.281	15057.324

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(15)	2S25C.5	0.79336E+15	0.12065F-02	0.15432E-03	0.2374282F+04
(15)	3S25C.5	0.28089E+16	0.33363C-02	0.15108E-03	0.5706008E+04
(15)	3D2D1.5	0.20409E+15	0.12237E-01	0.20132E-03	0.9229348E+04
(15)	4S25C.5	0.13385F+16	0.58930E-02	0.12715F-03	0.1407261E+05
(15)	4D2D1.5	0.10351E+16	0.10012E+00	0.83533E-03	0.1819836E+05
(15)	5S25C.5	0.71937F+15	0.70148E-02	0.81352E-04	0.2618486E+05
(15)	5D2D1.5	0.56962E+15	0.54230E+00	0.24900E-02	0.3306878F+05
(15)	6S25C.5	0.40122E+15	0.28700E-C2	0.18564E-04	0.4694836E+05
(15)	6D2D1.5	0.31664F+15	0.28180E+01	0.71925E-02	0.5948840E+05
(15)	7S25C.5	0.21662E+15	0.25003E-01	0.87315E-04	0.8695650E+05
(15)	7D2D1.5	0.16425E+15	0.14368E+C2	0.24320F-01	0.1146789E+06
(15)	10D2D1.5	0.11849E+15	0.60481E+02	0.57763E-01	0.1589825E+C6
(15)	8S25C.5	0.10002E+15	0.27469E+C1	0.44294E-02	0.1883239E+C6
(15)	8D2D1.5	0.65363E+14	0.27571F+C3	0.14526E+00	0.2881844E+06
(15)	9S25C.5	0.21662E+14	0.34908E+04	0.12191E+01	0.8695652C+06
(15)	9D2D1.5	0.24487E+13	0.93494E+C4	0.36909E+00	0.76923C7E+07
(15)	10S25C.5	0.33906E+14	0.16152E+04	0.88288E+00	0.5555555E+06
(15)	11S25C.5	0.73839E+14	0.82824F+02	0.98593E-01	0.2551020E+C6
(15)	11D2D1.5	0.86648E+14	0.11945E+03	0.16686E+00	0.2173912E+06
(15)	12D2D1.5	0.11434E+15	0.38800E+02	0.71519E-01	0.1647446E+06

INTERACTIONS -- QUADRUPOLE -

0.51262E+16	0.56867E+08
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BERYLLIUM ---- 4 ---- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	75192.312
	2	(2P)	108202.500

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2P) 2S1S0.0	0.0		
2	(2P) 2S1S0.0	0.0		
3	(2S) 2P3P0.0	21979.00	21980.00	21982.00
4	(2S) 2P1P1.0	42565.00		
5	(2S) 3S3S1.0	52082.00		
6	(2S) 3S1S0.0	54677.00		
7	(2P) 2P1D2.0	56432.50		
8	(2P) 2P1D2.0	56432.50		
9	(2S) 3P3P0.0	54791.00	58791.00	58791.00
10	(2P) 2P3D0.0	59694.61	59696.01	59698.04
11	(2P) 2P3P0.0	59694.61	59696.01	59698.04
12	(2S) 3P1P1.0	60197.00		
13	(2S) 3D3D1.0	62054.00	62054.00	62054.00
14	(2S) 3D1D2.0	64478.00		
15	(2S) 4S3S1.0	64507.00		
16	(2S) 4S1S0.0	65245.00		
17	(2S) 4P3P0.0	65949.00	65949.00	65949.00
18	(2S) 4P1P1.0	67228.00		
19	(2S) 4D3D1.0	67943.00	67943.00	67943.00
20	(2S) 4D1D2.0	68781.00		
21	(2S) 5S3S1.0	69009.00		
22	(2S) 5S1S0.0	69322.00		
23	(2S) 5P3P0.0	69634.50	69634.50	69634.50
24	(2S) 5D3D1.0	70606.00	70606.00	70606.00
25	(2S) 5D1D2.0	71002.00		
26	(2S) 6S3S1.0	71161.00		
27	(2S) 6S1S0.0	71320.00		
28	(2S) 6P3P0.0	71482.87	71482.87	71482.87
29	(2P) 2P1S0.0	71498.87		
30	(2P) 2P1S0.0	71498.87		
31	(2S) 6D3D1.0	72030.00	72030.00	72030.00
32	(2S) 6D1D2.0	72251.00		
33	(2S) 7S3S1.0	72355.00		
34	(2S) 7S1S0.0	72448.00		
35	(2S) 7D3D1.0	72881.00	72881.00	72881.00
36	(2S) 7D1D2.0	73017.00		
37	(2S) 8S3S1.0	73089.00		
38	(2S) 8S1S0.0	73146.00		
39	(2S) 8D3D1.0	73429.00	73429.00	73429.00
40	(2S) 8D1D2.0	73519.00		
41	(2S) 9S1S0.0	73608.00		
42	(2S) 9D3D1.0	73803.00	73803.00	73803.00
43	(2S) 9D1D2.0	73866.00		
44	(2S) 10S1S0.0	73930.00		

Table 3. Beryllium

ORIGINAL PAGE IS  
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# TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
45	(2S) 1003D1.0	74070.00	74070.00	74070.00
46	(2S) 1001D2.0	74116.00		
47	(2S) 11151S0.0	74163.00		
48	(2S) 11D3D1.0	74268.00	74268.00	74268.00
49	(2S) 11D1D2.0	74301.00		
50	(2S) 12D3D1.0	74416.00	74416.00	74416.00
51	(2S) 12D1D2.0	74443.00		
52	(2P) 3S3PC.0	85554.94	85557.00	85560.94
53	(2P) 3P3P0.0	91901.81	91901.81	91901.81
54	(2P) 3D3D1.0	94189.50	94190.12	94191.25
55	(2P) 3D3P0.0	95162.12	95163.12	95165.00

## 1 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N FFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		2P3P0.0	21979.000	1.436	75192.312	5.026	2.671

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2S) 3S3S1.0	0.56704E+16	0.50403E+00	0.46075E-01	0.3321928E+04
(2S) 3D3D1.0	0.75487E+16	0.13285E+01	0.16167E+00	0.2495321E+04
(2S) 4S3S1.0	0.80109E+16	0.72087E-01	0.93093E-02	0.2351392E+04
(2S) 4D3D1.0	0.86580E+16	0.35651E+00	0.49761E-01	0.2175615E+04
(2S) 5S3S1.0	0.88584E+16	0.28737E-01	0.41041E-02	0.2126302E+04
(2S) 5D3D1.0	0.91596E+16	0.14868E+00	0.21956E-01	0.2056470E+04
(2S) 6S3S1.0	0.92642E+16	0.15258E-01	0.22788E-02	0.2033264E+04
(2S) 6D3D1.0	0.94270E+16	0.76802E-01	0.11673E-01	0.1997962E+04
(2S) 7S3S1.0	0.94891E+16	0.93263E-02	0.14267E-02	0.1985072E+04
(2S) 7D3D1.0	0.95882E+16	0.44986E-01	0.69537E-02	0.1964559E+04
(2S) 8S3S1.0	0.96273E+16	0.61448E-02	0.95371E-03	0.1956564E+04
(2S) 8D3D1.0	0.96914E+16	0.28670E-01	0.44794E-02	0.1943635E+04
(2S) 9D3D1.0	0.97618E+16	0.19407E-01	0.30541E-02	0.1929608E+04
(2S) 10D3D1.0	0.99121E+16	0.13764E-01	0.21773E-02	0.1919717E+04
(2S) 11D3D1.0	0.98494E+16	0.10160E-01	0.16133E-02	0.1912448E+04
(2S) 12D3D1.0	0.99773E+16	0.76650E-02	0.12266E-02	0.1907050E+04

## INTERACTIONS -- QUADRUPOLE -

0.93248E+16	0.28255E+02
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ORIGINAL PAGE IS  
OF POOR QUALITY

2 - SEQ. NUM.

PR	EE	DFSIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		2P3P1.0	2190.000	1.436	75192.312	5.026	2.671

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(25)	35351.0	0.56702E+16	0.59402E+00	0.46073E-01	0.3322038E+04
(25)	30301.0	0.75485E+16	0.33211E+00	0.40416E-01	0.2495383E+04
(25)	30302.0	0.75485E+16	0.99633E+00	0.12125E+00	0.2495383E+04
(25)	45351.0	0.80106E+16	0.72082E-01	0.93088E-02	0.2351447E+04
(25)	40301.0	0.86578E+16	0.89126E-01	0.12440E-01	0.2175663E+04
(25)	40302.0	0.86578E+16	0.26738E+00	0.37320E-01	0.2175663E+04
(25)	55351.0	0.88586E+16	0.28736E-01	0.41039E-02	0.2126347E+04
(25)	50301.0	0.91594E+16	0.37171E-01	0.54888E-02	0.2056513E+04
(25)	50302.0	0.91594E+16	0.11151E+00	0.16466E-01	0.2056513E+04
(25)	65351.0	0.92646E+16	0.15257E-01	0.22787E-02	0.2033305E+04
(25)	60301.0	0.94277E+16	0.19290E-01	0.29182E-02	0.1998002E+04
(25)	60302.0	0.94277E+16	0.57601E-01	0.87545E-02	0.1998002E+04
(25)	75351.0	0.94889E+16	0.93261E-02	0.14267E-02	0.1985112E+04
(25)	70301.0	0.95883E+16	0.11246E-01	0.17384E-02	0.1964598E+04
(25)	70302.0	0.95883E+16	0.33739E-01	0.52151E-02	0.1964598E+04
(25)	85351.0	0.96272E+16	0.61446E-02	0.95367E-03	0.1956603E+04
(25)	80301.0	0.96912E+16	0.71674E-02	0.11198E-02	0.1943672E+04
(25)	80302.0	0.96912E+16	0.21502E-01	0.33594E-02	0.1943672E+04
(25)	90301.0	0.97616E+16	0.48516E-02	0.76351E-03	0.1929645E+04
(25)	90302.0	0.97616E+16	0.14555E-01	0.22905E-02	0.1929645E+04
(25)	100301.0	0.98119E+16	0.34410E-02	0.54430E-03	0.1919754E+04
(25)	100302.0	0.98119E+16	0.10323E-01	0.16329E-02	0.1919754E+04
(25)	110301.0	0.98492E+16	0.25400E-02	0.40331E-03	0.1912485E+04
(25)	110302.0	0.98492E+16	0.76199E-02	0.12099E-02	0.1912485E+04
(25)	120301.0	0.98771E+16	0.19162E-02	0.30513E-03	0.1907087E+04
(25)	120302.0	0.98771E+16	0.57487E-02	0.91538E-03	0.1907087E+04

INTERACTIONS -- QUADRUPOLE -

0.93246E+16	0.21191E+02
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3 - SFQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		2P1P1.0	42565.000	1.833	75192.312	19.800	8.999

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(25)	3S150.0	0.22815E+16	0.35638E+01	0.13108E+00	0.8256273E+04
(25)	30102.0	0.41182E+16	0.26369E+01	0.17507E+00	0.4573937E+04
(25)	4S150.0	0.42721E+16	0.13675E+00	0.94191E-02	0.4409168E+04
(25)	40102.0	0.49382E+16	0.12343E+01	0.98263E-01	0.3814454E+04
(25)	5S150.0	0.50401E+16	0.36672E-01	0.29797E-02	0.3737340E+04
(25)	50102.0	0.53565E+16	0.55364E+00	0.47810E-01	0.3516545E+04
(25)	6S150.0	0.54164E+16	0.15781E-01	0.13780E-02	0.3477656E+04
(25)	60102.0	0.55013E+16	0.29566E+00	0.26653E-01	0.3368591E+04
(25)	7S150.0	0.56289E+16	0.84442E-02	0.76628E-03	0.3346384E+04
(25)	70102.0	0.57361E+16	0.17717E+00	0.16402E-01	0.3283856E+04
(25)	8S150.0	0.57604E+16	0.51038E-02	0.47397E-03	0.3270004E+04
(25)	80102.0	0.58307E+16	0.11520E+00	0.10829E-01	0.3230600E+04
(25)	9S150.0	0.58474E+16	0.33443E-02	0.31526E-03	0.3221338E+04
(25)	90102.0	0.58960E+16	0.79300E-01	0.75375E-02	0.3194786E+04
(25)	10S150.0	0.59081E+16	0.23345E-02	0.22235E-03	0.3188267E+04
(25)	100102.0	0.59431E+16	0.57180E-01	0.54785E-02	0.3169471E+04
(25)	11S150.0	0.59520E+16	0.17020E-02	0.16332E-03	0.3164757E+04
(25)	110102.0	0.59780E+16	0.42564E-01	0.41020E-02	0.3150996E+04
(25)	120102.0	0.60047E+16	0.32823E-01	0.31774E-02	0.3136959E+04

4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		3S351.0	52082.000	2.179	75192.312	58.678	55.612

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(25)	2P3P0.0	0.56704E+16	0.16801E+00	0.46075E-01	0.3321928E+04
(25)	2P3P1.0	0.56702E+16	0.50402E+00	0.46073E-01	0.3322038E+04
(25)	2P3P2.0	0.56699E+16	0.84004E+00	0.46071E-01	0.3322259E+04
(25)	3P3P0.0	0.12637E+16	0.58264E+01	0.11870E+00	0.1490535E+05
(25)	3P3P1.0	0.12637E+16	0.17479E+02	0.35610E+00	0.1490535E+05
(25)	3P3P2.0	0.12637E+16	0.29132E+02	0.59351E+00	0.1490535E+05
(25)	4P3P0.0	0.26121E+16	0.11245E+00	0.47351E-02	0.7211363E+04
(25)	4P3P1.0	0.26121E+16	0.33733E+00	0.14205E-01	0.7211363E+04
(25)	4P3P2.0	0.26121E+16	0.56223E+00	0.23675E-01	0.7211363E+04
(25)	5P3P0.0	0.33063E+16	0.47441E-01	0.25287E-02	0.5697191E+04
(25)	5P3P1.0	0.33063E+16	0.14232E+00	0.75860E-02	0.5697191E+04
(25)	5P3P2.0	0.33063E+16	0.23721E+00	0.12644E-01	0.5697191E+04
(25)	6P3P0.0	0.36544E+16	0.24905E-01	0.14673E-02	0.5154406E+04
(25)	6P3P1.0	0.36544E+16	0.74712E-01	0.44017E-02	0.5154406E+04
(25)	6P3P2.0	0.36544E+16	0.12452E+00	0.73363E-02	0.5154406E+04

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## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		3S1S0.0	54677.000	2.312	75192.312	74.112	79.179

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(25)	2P1P1.0	0.22815E+16	0.10691E+02	0.13108E+00	0.8256273E+04
(25)	3P1P1.0	0.10379E+16	0.68449E+02	0.11453E+01	0.1814882E+05
(25)	4P1P1.0	0.23642E+16	0.38988E-01	0.14860E-02	0.7967492E+C4

## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		3D3D1.0	62054.000	2.889	75192.312	103.422	45.276

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(25)	2P3P1.0	0.75487E+16	0.44292E+00	0.16167E+00	0.2495321E+04
(25)	2P3P1.0	0.75485E+16	0.33211E+00	0.40416E-01	0.2495383E+04
(25)	2P3P2.0	0.75482E+16	0.22141E-01	0.16166E-02	0.2495508E+04
(25)	3P3P0.0	0.61464E+15	0.18459E+02	0.54872E+00	0.3064664E+05
(25)	3P3P1.0	0.61464E+15	0.13844E+02	0.13719E+00	0.3064664E+05
(25)	3P3P2.0	0.61464E+15	0.92296E+00	0.54872E-02	0.3064664E+05
(25)	4P3P0.0	0.73368E+15	0.59553E+01	0.70439E-01	0.2567394E+05
(25)	4P3P1.0	0.73368E+15	0.44664E+01	0.52829E-01	0.2567394E+05
(25)	4P3P2.0	0.73368E+15	0.29777E+00	0.35220E-02	0.2567394E+05
(25)	5P3P0.0	0.14279E+16	0.24044E+00	0.55348E-02	0.1319174E+05
(25)	5P3P1.0	0.14279E+16	0.18033E+00	0.41511E-02	0.1319174E+05
(25)	5P3P2.0	0.14279E+16	0.12022E-01	0.27674E-03	0.1319174E+05
(25)	6P3P0.0	0.17761E+16	0.56021E-01	0.16040E-02	0.1060572E+05
(25)	6P3P1.0	0.17761E+16	0.42015E-01	0.12030E-02	0.1060572E+05
(25)	6P3P2.0	0.17761E+16	0.28011E-02	0.80203E-04	0.1060572E+05

## INTERACTIONS -- QUADRUPOLE -

0.23286E+16	0.65171E+04
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## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		3D1D2.0	64429.000	3.192	75192.312	172.360	67.250

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(25)	2P1P1.0	0.41182E+16	0.15821E+01	0.17507E+00	0.4573937E+04
(25)	3P1P1.0	0.79886E+15	0.41728E+02	0.89567E+00	0.2357934E+05
(25)	4P1P1.0	0.52742E+15	0.23940E+02	0.20356E+00	0.3571429E+05

## 8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		4S150.0	65245.000	3.321	75192.312	309.424	306.812

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(2S) 2P1P1.0	0.42721E+16	0.41024E+00	0.94181E-02	0.4409168E+04	
(2S) 3P1P1.0	0.95275E+15	0.40625E+02	0.20799E+00	0.1977066E+05	
(2S) 4P1P1.0	0.37353E+15	0.26578E+03	0.16005E+01	0.5042864E+05	

## 9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		4P3P0.0	65949.000	3.445	75192.312	322.188	318.657

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(2S) 3S3S1.0	0.26121E+16	0.33734E+00	0.47351E-02	0.7211363E+04	
(2S) 3D3D1.0	0.73363E+15	0.17866E+02	0.70439E-01	0.2557394E+05	
(2S) 4S3S1.0	0.27162E+15	0.81395E+02	0.11881E+00	0.6934812E+05	
(2S) 4D3D1.0	0.37560E+15	0.19554E+03	0.11840E+01	0.5015045E+05	
(2S) 5S3S1.0	0.57640E+15	0.20395E+02	0.18952E+00	0.3267974E+05	
(2S) 5D3D1.0	0.87722E+15	0.20706E-01	0.29283E-03	0.2147305E+05	
(2S) 6S3S1.0	0.98176E+15	0.19304E+01	0.30560E-01	0.1918649E+05	
(2S) 6D3D1.0	0.11454E+16	0.65832E-01	0.12157E-02	0.1644466E+05	
(2S) 7S3S1.0	0.12067E+16	0.60206E+00	0.11712E-01	0.1561036E+05	
(2S) 7D3D1.0	0.13057E+16	0.68939E-01	0.14512E-02	0.1442585E+05	
(2S) 8S3S1.0	0.13449E+16	0.27802E+00	0.60280E-02	0.1400560E+05	
(2S) 8D3D1.0	0.14090E+16	0.54878E-01	0.12465E-02	0.1336898E+05	
(2S) 9D3D1.0	0.14794E+16	0.41524E-01	0.99035E-03	0.1273236E+05	
(2S) 10D3D1.0	0.15297E+16	0.30204E-01	0.74486E-03	0.1231375E+05	
(2S) 11D3D1.0	0.15670E+16	0.19379E-01	0.48955E-03	0.1202067E+05	
(2S) 12D3D1.0	0.15949E+16	0.17291E-01	0.44459E-03	0.1181056E+05	

## INTERACTIONS -- QUADRUPOLE -

0.82818E+16	0.37454E+05
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OF POOR QUALITY

## 10 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4D1D2.0	68781.000	4.136	75192.312	586.067	156.802

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	2P1P1.0	0.49382E+16	0.74058E+00	0.98263E-01	0.3814464E+04
(25)	3P1P1.0	0.16188E+16	0.26535E+00	0.11542E-01	0.1163602E+05
(25)	4P1P1.0	0.29253E+15	0.15580E+03	0.12246E+01	0.6439150E+05

## 11 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		5S150.0	69322.000	4.322	75192.312	882.017	160.017

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	2P1P1.0	0.50401E+16	0.11002E+00	0.29797E-02	0.3737340E+04
(25)	3P1P1.0	0.17207E+16	0.24727E+01	0.22865E-01	0.1094691E+05
(25)	4P1P1.0	0.39444E+15	0.15743E+03	0.33370E+00	0.4775549E+05

## 12 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		503D1.0	70606.000	4.890	75192.312	1226.472	483.490

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	2P3P0.0	0.91596E+16	0.49562E-01	0.21955E-01	0.2056470E+04
(25)	2P3P1.0	0.91594E+16	0.37171E-01	0.54888E-02	0.2056513E+04
(25)	2P3P2.0	0.91591E+16	0.24781E-02	0.21954E-03	0.2056597E+04
(25)	3P3P0.0	0.22255E+16	0.38463E+00	0.41400E-01	0.8463816E+04
(25)	3P3P1.0	0.22255E+16	0.28847E+00	0.10350E-01	0.8463816E+04
(25)	3P3P2.0	0.22255E+16	0.19232E-01	0.41400E-03	0.8463816E+04
(25)	4P3P0.0	0.87722E+15	0.69021E-02	0.29283E-03	0.2147305E+05
(25)	4P3P1.0	0.87722E+15	0.51755E-02	0.73206E-04	0.2147305E+05
(25)	4P3P2.0	0.87722E+15	0.34511E-03	0.29281E-05	0.2147305E+05
(25)	5P3P0.0	0.18300E+15	0.17296E+03	0.15308E+01	0.1029336E+06
(25)	5P3P1.0	0.18300E+15	0.12972E+03	0.38269E+00	0.1029336E+06
(25)	5P3P2.0	0.18300E+15	0.86479E+01	0.15308E-01	0.1029336E+06
(25)	6P3P0.0	0.16517E+15	0.95299E+02	0.25352E+00	0.1140413E+06
(25)	6P3P1.0	0.16517E+15	0.71406E+02	0.19014E+00	0.1140413E+06
(25)	6P3P2.0	0.16517E+15	0.47605E+01	0.12676E-01	0.1140413E+06

## INTERACTIONS -- QUADRUPOLE -

0.16109E+16	0.52329E+06
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## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		50102.0	71002.000	5.116	75192.312	1490.109	0.696

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	2P1P1.0	0.53565E+16	0.33218E+00	0.47810E-01	0.3516545E+C4
(25)	3P1P1.0	0.20372E+16	0.29017E+00	0.15883E-01	0.9246414E+04
(25)	4P1P1.0	0.71089E+15	0.73667E-01	0.14071E-02	0.2649708E+05

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		65351.0	71161.000	5.216	75192.312	1864.114	1841.258

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	2P3P0.0	0.92642E+16	0.50859E-02	0.22788E-02	0.2033264E+04
(25)	2P3P1.0	0.92640E+16	0.15257E-01	0.22787E-02	0.2033305E+04
(25)	2P3P2.0	0.92636E+16	0.25429E-01	0.22786E-02	0.2033388E+04
(25)	3P3P0.0	0.23301E+16	0.81181E-01	0.91485E-02	0.8084074E+04
(25)	3P3P1.0	0.23301E+16	0.24354E+00	0.91483E-02	0.8094074E+04
(25)	3P3P2.0	0.23301E+16	0.40597E+00	0.91485E-02	0.8084074E+04
(25)	4P3P0.0	0.98176E+15	0.64361E+00	0.30560E-01	0.1918649E+05
(25)	4P3P1.0	0.98176E+15	0.19308E+01	0.30559E-01	0.1918649E+05
(25)	4P3P2.0	0.98176E+15	0.32160E+01	0.30560E-01	0.1918649E+05
(25)	5P3P0.0	0.28754E+15	0.18750E+02	0.26075E+00	0.6550933E+05
(25)	5P3P1.0	0.28754E+15	0.56250E+02	0.26075E+00	0.6550933E+05
(25)	5P3P2.0	0.28754E+15	0.93751E+02	0.26075E+00	0.6550933E+05
(25)	6P3P0.0	0.60630E+14	0.18511E+03	0.18093E+00	0.3106796E+06
(25)	6P3P1.0	0.60630E+14	0.55531E+03	0.54278E+00	0.3106796E+06
(25)	6P3P2.0	0.60630E+14	0.92551E+03	0.90465E+00	0.3106796E+06

BORON ----- 5 ----- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1S)	66930.000

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 2P2P0.5	0.0	16.00
2	(1S) 3S2S0.5	40040.00	
3	(1S) 3P2P0.5	45613.00	48613.00
4	(1S) 3D2D1.5	54765.00	54765.00
5	(1S) 4S2S0.5	55009.00	
6	(1S) 4D2D1.5	59989.00	59989.00
7	(1S) 5S2S0.5	60146.00	
8	(1S) 6S2S0.5	62099.00	
9	(1S) 5D2D1.5	62481.00	62481.00
10	(1S) 6D2D1.5	63847.00	63847.00
11	(1S) 7S2S0.5	64156.00	
12	(1S) 7D2D1.5	64664.00	64664.00
13	(1S) 8D2D1.5	65195.00	65195.00
14	(1S) 9S2S0.5	65553.00	

Table 4. Boron

## 1 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		2P2P1.5	16.000	1.280	66930.000	2.304	0.702

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC	
(15)	352S1.5	0.75391E+16	0.26671E+00	0.32417E-01	0.2498501E+04
(15)	30201.5	0.10313E+17	0.18690E-01	0.31073E-02	0.1826517E+04
(15)	30202.5	0.10313E+17	0.16821E+00	0.27966E-01	0.1826517E+04
(15)	452S0.5	0.10359E+17	0.41212E-01	0.68823E-02	0.1818413E+04
(15)	40201.5	0.11297E+17	0.87282E-02	0.15895E-02	0.1667417E+04
(15)	40202.5	0.11297E+17	0.78554E-01	0.14306E-01	0.1667417E+04
(15)	552S1.5	0.11326E+17	0.16797E-01	0.30671E-02	0.1663063E+04
(15)	652S0.5	0.11694E+17	0.69544E-02	0.13111E-02	0.1610773E+04
(15)	50201.5	0.11766E+17	0.43513E-02	0.82539E-03	0.1600806E+04
(15)	50202.5	0.11766E+17	0.39161E-01	0.74285E-02	0.1600896E+04
(15)	60201.5	0.12024E+17	0.24138E-02	0.46789E-03	0.1566637E+04
(15)	60202.5	0.12024E+17	0.21724E-01	0.42110E-02	0.1566637E+04
(15)	752S0.5	0.12082E+17	0.18567E-02	0.36163E-03	0.1559089E+04
(15)	70201.5	0.12177E+17	0.15070E-02	0.29584E-03	0.1546838E+04
(15)	70202.5	0.12177E+17	0.13563E-01	0.26625E-02	0.1546838E+04
(15)	80201.5	0.12277E+17	0.10027E-02	0.19845E-03	0.1534236E+04
(15)	80202.5	0.12277E+17	0.90238E-02	0.17861E-02	0.1534236E+04
(15)	952S0.5	0.12345E+17	0.16669E-02	0.33174E-03	0.1525855E+04

## INTERACTIONS -- QUADRUPOLE -

0.91540E+16	0.39581E+01
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## 2 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		352S0.5	40040.000	2.020	66930.000	43.631	40.015

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC	
(15)	2P2P0.5	0.75421E+16	0.26671E+00	0.32430E-01	0.2497502E+04
(15)	2P2P1.5	0.75391E+16	0.53343E+00	0.32417E-01	0.2498501E+04
(15)	3P2P0.5	0.16149E+16	0.13072E+02	0.34031E+00	0.1166453E+05
(15)	3P2P1.5	0.16149E+16	0.26143E+02	0.68061E+00	0.1166453E+05

## 3 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		3P2P.5	48613.000	2.447	66930.000	74.484	72.653

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(1S)	7S2SC.5	0.16149E+16	0.13077E+02	0.34031E+00	0.1166453E+05
(1S)	3D2D1.5	0.11589E+16	0.48619E+02	0.90829E+00	0.1625487E+05
(1S)	4S2SC.5	0.12048E+16	0.10115E+02	0.19647E+00	0.1563477E+05
(1S)	4D2D1.5	0.21428E+16	0.84421E-02	0.29164E-03	0.8790434E+04
(1S)	5S2SC.5	0.21724E+16	0.60618E+00	0.21230E-01	0.8670770E+04
(1S)	6S2SC.5	0.25401E+16	0.33076E-01	0.13545E-02	0.7415645E+04
(1S)	5D2D1.5	0.26122E+16	0.34909E-01	0.14701E-02	0.7210844E+04
(1S)	6D2D1.5	0.29696E+16	0.32194E-01	0.14894E-02	0.6564262E+04
(1S)	7S2SC.5	0.29274E+16	0.73172E-01	0.34537E-02	0.6433762E+04
(1S)	7D2D1.5	0.32234E+16	0.27286E-01	0.13300E-02	0.6230141E+04
(1S)	8D2D1.5	0.31235E+16	0.21467E-01	0.10810E-02	0.6030633E+04
(1S)	9S2SC.5	0.31909E+16	0.13268E-01	0.68251E-03	0.5903187E+04

## 4 - SEQ. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		3D2D1.5	54765.000	3.003	66930.000	126.576	29.283

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(1S)	2P2P.5	0.10316E+17	0.93448E-01	0.31082E-01	0.1825984E+04
(1S)	2P2P1.5	0.10313E+17	0.14690E-01	0.31073E-02	0.1826517E+04
(1S)	3P2P.5	0.11588E+16	0.24309E+02	0.90829E+00	0.1625487E+05
(1S)	3P2P1.5	0.11588E+16	0.48619E+01	0.90829E-01	0.1625487E+05

## INTERACTIONS -- QUADRUPOLE -

0.19646E+16	0.49293E+04
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## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		4S2SC.5	55009.000	3.033	66930.000	215.223	30.469

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(1S)	2P2P.5	0.10362E+17	0.41212E-01	0.68843E-02	0.1817884E+04
(1S)	2P2P1.5	0.10359E+17	0.82424E-01	0.68823E-02	0.1818413E+04
(1S)	3P2P.5	0.12048E+16	0.10115E+02	0.19647E+00	0.1563477E+05
(1S)	3P2P1.5	0.12048E+16	0.20239E+02	0.19647E+00	0.1563477E+05

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(15)		55259.5	60146.000	4.021	66930.000	661.537	1.869

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(15)	2P2PC.5	0.11329E+17	0.16797E-01	0.30679E-02	0.1662621E+04
(15)	2P2P1.5	0.11326E+17	0.33594E-01	0.30671E-02	0.1663063E+04
(15)	3P2P0.5	0.21724E+16	0.60618E+00	0.21230E-01	0.8670770E+04
(15)	3P2P1.5	0.21724E+16	0.12124E+01	0.21230E-01	0.8670770E+04

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2P)	90978.312

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2P) 2P3P0.0	0.0	16.00	43.00
2	(2P) 2P1D2.0	10193.00		
3	(2P) 2P150.0	21648.00		
4	(2P) 3S3P0.0	60333.00	60353.00	60393.00
5	(2P) 3S1P1.0	61982.00		
6	(2P) 3P1P1.0	68858.00		
7	(2P) 3P3D1.0	69689.00	69710.00	69744.00
8	(2P) 3P3S1.0	70744.00		
9	(2P) 3P3P0.0	71352.00	71365.00	71385.00
10	(2P) 3P1D2.0	72611.00		
11	(2P) 3P150.0	73976.00		
12	(2P) 3D1D2.0	77680.00		
13	(2P) 4S3P0.0	78105.00	78117.00	78148.00
14	(2P) 3D3F2.0	78199.00	78215.00	78250.00
15	(2P) 3D3D1.0	78300.00	78307.00	78316.00
16	(2P) 4S1P1.0	78338.00		
17	(2P) 3D1F3.0	78531.00		
18	(2P) 3D1P1.0	78727.00		
19	(2P) 3D3P0.0	79323.00	79319.00	79311.00
20	(2P) 4P3D1.0	80173.00	80192.00	80222.00
21	(2P) 4P1P1.0	80563.00		
22	(2P) 4P3S1.0	81105.00		
23	(2P) 4P3P0.0	81311.00	81326.00	81344.00
24	(2P) 4P1D2.0	81770.00		
25	(2P) 4P150.0	82252.00		
26	(2P) 4D1D2.0	83501.00		
27	(2P) 4D3F2.0	83758.00	83761.00	83765.00
28	(2P) 4D3D1.0	83830.00	83837.00	83847.00
29	(2P) 5S1P1.0	83882.00		
30	(2P) 4D1F3.0	83949.00		
31	(2P) 4D1P1.0	84032.00		
32	(2P) 4D3P0.0	84115.00	84112.00	84102.00
33	(2P) 5P1P1.0	84852.00		
34	(2P) 5P3D1.0	84850.00	84952.00	84986.00
35	(2P) 5P1D2.0	85400.00		
36	(2P) 5P150.0	85625.00		
37	(2P) 5D1D2.0	85187.00		
38	(2P) 5D3F2.0	86319.00	86326.00	86328.00
39	(2P) 5D3D1.0	86370.00	86371.00	86396.00
40	(2P) 6S1P1.0	86413.00		
41	(2P) 5D1F3.0	86450.00		
42	(2P) 5D1P1.0	86491.00		
43	(2P) 5D3P0.0	86519.00	86517.00	86504.00
44	(2P) 6D1D2.0	87632.00		
45	(2P) 6D3F2.0	87706.00	87713.00	87715.00

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
46	(2P) 603D1.0	87750.00	87752.00	87773.00
47	(2P) 751P1.0	87795.00		
48	(2P) 601F3.0	87807.00		
49	(2P) 603P0.0	87828.00	87839.00	87830.00
50	(2P) 601P1.0	87831.00		
51	(2P) 703F2.0	88541.00	88547.00	88548.00
52	(2P) 703D1.0	88605.00	88605.00	88607.00
53	(2P) 701F3.0	88624.00		
54	(2P) 701P1.0	88632.00		
55	(2P) 703P0.0	88638.00	88639.00	88639.00
56	(2P) 803F2.0	89082.00	89081.00	89080.00
57	(2P) 803D1.0	89144.00	89144.00	89146.00
58	(2P) 801F3.0	89155.00		
59	(2P) 603P0.0	89158.00	89158.00	89158.00
60	(2P) 903F2.0	89450.00	89450.00	89450.00
61	(2P) 903D1.0	89510.00	89510.00	89514.00
62	(2P) 901F3.0	89517.00		
63	(2P) 1003D1.0	89775.00	89775.00	89779.00
64	(2P) 1103D1.0	89960.00	89960.00	89968.00

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	*	2P3P0.0	0.0	1.099	90878.312	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	*	2P3P1.0	16.000	1.099	90878.312	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)	*	2P102.0	10193.000	1.166	90878.312	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)	*	2P150.0	21648.000	1.259	90878.312	2.023	0.633

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(2P)	3S1P1.0	0.75975E+16	0.29352E+00	0.35951E-01	0.2479298E+04
(2P)	4S1P1.0	0.10673E+17	0.40870E-01	0.70358E-02	0.1763979E+04
(2P)	3D1P1.0	0.10752E+17	0.14805E+00	0.25662E-01	0.1751958E+04
(2P)	5S1P1.0	0.11723E+17	0.15667E-01	0.29609E-02	0.1606839E+04
(2P)	4D1P1.0	0.11751E+17	0.61740E-01	0.11696E-01	0.1602975E+04
(2P)	6S1P1.0	0.12199E+17	0.80332E-02	0.15799E-02	0.1544044E+04
(2P)	5D1P1.0	0.12214E+17	0.31102E-01	0.61242E-02	0.1542186E+04
(2P)	7S1P1.0	0.12460E+17	0.47250E-02	0.94911E-03	0.1511784E+04
(2P)	6D1P1.0	0.12467E+17	0.17691E-01	0.35555E-02	0.1510962E+04
(2P)	7D1P1.0	0.12617E+17	0.11458E-01	0.23307E-02	0.1492894E+04

## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		3P3P1.0	60353.000	1.896	90878.312	34.116	31.469

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(2P)	3P3D1.0	0.17586E+16	0.43915E+01	0.12450E+00	0.1071122E+05
(2P)	3P3D2.0	0.17623E+16	0.13174E+02	0.37435E+00	0.1058718E+05
(2P)	3P3S1.0	0.19571E+16	0.34613E+01	0.10922E+00	0.9623711E+04
(2P)	3P3P0.0	0.20719E+16	0.33914E+01	0.11327E+00	0.9091734E+04
(2P)	3P3P1.0	0.20743E+16	0.25434E+01	0.85052E-01	0.9081000E+04
(2P)	3P3P2.0	0.20780E+16	0.42392E+01	0.14207E+00	0.9064539E+04
(2P)	4P3D1.0	0.37334E+16	0.45557E-01	0.27420E-02	0.5045406E+04
(2P)	4P3D2.0	0.37370E+16	0.13667E+00	0.82338E-02	0.5040574E+04
(2P)	4P3S1.0	0.39090E+16	0.78826E-02	0.49674E-03	0.4818812E+04
(2P)	4P3P0.0	0.39478E+16	0.23260E-01	0.14804E-02	0.4771445E+04
(2P)	4P3P1.0	0.39506E+16	0.17444E-01	0.11110E-02	0.4768031E+04
(2P)	4P3P2.0	0.39540E+16	0.29076E-01	0.18534E-02	0.4763945E+04
(2P)	5P3D1.0	0.46144E+16	0.19297E-02	0.14355E-03	0.4082132E+04
(2P)	5P3D2.0	0.46336E+16	0.57890E-02	0.43244E-03	0.4065206E+04



## 6 - SEQ. NUM.

PR	EF	DESIG	LFVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		35P2.0	60393.000	1.896	90878.312	34.116	31.469

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(2P)	3P301.0	0.17513E+16	0.17566E+00	0.49589E-02	0.1075731E+05
(2P)	3P302.0	0.17550E+16	0.26349E+01	0.74550E-01	0.1073307E+05
(2P)	3P303.0	0.17614E+16	0.14756E+02	0.41901E+00	0.1069404E+05
(2P)	3P351.0	0.19498E+16	0.34613E+01	0.10883E+00	0.9650898E+04
(2P)	3P3P1.0	0.20667E+16	0.25435E+01	0.84748E-01	0.9114105E+04
(2P)	3P3P2.0	0.20705E+16	0.76306E+01	0.25470E+00	0.9097523E+04
(2P)	4P301.0	0.17254E+16	0.18223E-02	0.10945E-03	0.5055609E+04
(2P)	4P302.0	0.17294E+16	0.27334E-01	0.16435E-02	0.5050758E+04
(2P)	4P303.0	0.17351E+16	0.15307E+00	0.92174E-02	0.5043117E+04
(2P)	4P351.0	0.19014E+16	0.78827E-02	0.49580E-03	0.4828117E+04
(2P)	4P3P1.0	0.19432E+16	0.17445E-01	0.11093E-02	0.4777145E+04
(2P)	4P3P2.0	0.19464E+16	0.52336E-01	0.33297E-02	0.4773039E+04
(2P)	5P301.0	0.46068E+16	0.77189E-04	0.57327E-05	0.4088809E+04
(2P)	5P302.0	0.46261E+16	0.11578E-02	0.86348E-04	0.4071827E+04
(2P)	5P303.0	0.46325E+16	0.64838E-02	0.48422E-03	0.4066198E+04

## 7 - SEQ. NUM.

PR	EF	DESIG	LFVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		35P1.0	61982.000	1.948	90978.312	37.915	33.597

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(2P)	* 2P150.0	0.75975E+16	0.97841E-01	0.35951E-01	0.2479298E+04
(2P)	3P1P1.0	0.12952E+16	0.11463E+02	0.23934E+00	0.1454334E+05
(2P)	3P102.0	0.20021E+16	0.18258E+02	0.58933E+00	0.9408223E+04
(2P)	3P150.0	0.22593E+16	0.32635E+01	0.11887E+00	0.9337500E+04
(2P)	4P1P1.0	0.35003E+16	0.10672E+00	0.60207E-02	0.5381840E+04
(2P)	4P102.0	0.17274E+16	0.20681E+00	0.12427E-01	0.5053566E+04
(2P)	4P150.0	0.18182E+16	0.10378E+00	0.63878E-02	0.4933398E+04
(2P)	5P1P1.0	0.43079E+16	0.50036E-01	0.34753E-02	0.4372539E+04
(2P)	5P102.0	0.44111E+16	0.26612E-01	0.18925E-02	0.4270219E+04
(2P)	5P150.0	0.44535E+16	0.21317E-01	0.15305E-02	0.4229578E+04

8 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)	3PI1.0	68858.000	2.232	90878.312	49.518	50.291

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA***2	F	W L VAC
(2P) 3S1P1.0	0.12952E+16	0.11463E+02	0.23934E+00	0.1454334E+05
(2P) 3D1D2.0	0.14613E+16	0.26087E+02	0.69888E+00	0.1133530E+05
(2P) 4S1P1.0	0.17457E+16	0.38322E+01	0.11032E+00	0.1054852E+05
(2P) 3D1P1.0	0.18590E+16	0.76501E+01	0.22927E+00	0.1013274E+05
(2P) 4D1D2.0	0.27580E+16	0.23893E+00	0.10624E-01	0.6829668E+04
(2P) 5S1P1.0	0.28300E+16	0.36520E+00	0.16662E-01	0.6656016E+04
(2P) 4D1P1.0	0.28583E+16	0.35855E+00	0.16522E-01	0.6590219E+04
(2P) 5D1D2.0	0.32642E+16	0.62821E-02	0.33058E-03	0.5770672E+04
(2P) 6S1P1.0	0.33068E+16	0.11632E+00	0.62007E-02	0.5696379E+04
(2P) 5D1P1.0	0.33214E+16	0.77697E-01	0.41604E-02	0.5671184E+04
(2P) 6D1D2.0	0.35364E+16	0.78782E-03	0.44915E-04	0.5326512E+04
(2P) 7S1P1.0	0.35671E+16	0.53641E-01	0.30847E-02	0.5280664E+04
(2P) 6D1P1.0	0.35739E+16	0.29028E-01	0.16725E-02	0.5270645E+04
(2P) 7D1P1.0	0.37247E+16	0.12400E-01	0.74459E-03	0.5057145E+04

INTERACTIONS -- QUADRUPOLE -

0.30127E+16	0.29234E+03
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PR (2P)	FF 393D2.0	DESIG 6971C.000	LEVEL	N EFF 2.277	S. LIMIT 90878.312	RAA**2 54.154	S. RAA**2 53.187
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(2P)	3S3P1.0	0.17625E+16	0.79047E+01	0.37435E+00
(2P)	3S3P2.0	0.17550E+16	0.26349E+01	0.74550E-01
(2P)	4S3P1.0	0.15836E+16	0.42377E+01	0.10819E+00
(2P)	4S3P2.0	0.15894E+16	0.14126E+01	0.36195E-01
(2P)	3D3F2.0	0.15990E+16	0.34029E+01	0.87722E-01
(2P)	3D3F3.0	0.16027E+16	0.27221E+02	0.70309E+00
(2P)	3D3D1.0	0.16181E+16	0.81342E+00	0.21218E-01
(2P)	3D3D2.0	0.16194E+16	0.37657E+01	0.98310E-01
(2P)	3D3D3.0	0.16211E+16	0.84355E+00	0.22045E-01
(2P)	3D3P1.0	0.18100E+16	0.22927E+00	0.66879E-02
(2P)	3D3P2.0	0.18085E+16	0.76399E-01	0.22275E-02
(2P)	4D3F2.0	0.26462E+16	0.49707E-01	0.21205E-02
(2P)	4D3F3.0	0.26467E+16	0.37765E+00	0.16967E-01
(2P)	4D3D1.0	0.26597E+16	0.15724E-01	0.67423E-03
(2P)	4D3D2.0	0.26610E+16	0.72794E-01	0.31229E-02
(2P)	4D3D3.0	0.26629E+16	0.16307E-01	0.70004E-03
(2P)	4D3P1.0	0.27128E+16	0.99963E-02	0.43719E-03
(2P)	4D3P2.0	0.27110E+16	0.37321E-02	0.14563E-03
(2P)	5D3F2.0	0.31286E+16	0.34767E-02	0.17535E-03
(2P)	5D3F3.0	0.31299E+16	0.27813E-01	0.14034E-02
(2P)	5D3D1.0	0.31382E+16	0.18827E-02	0.95215E-04
(2P)	5D3D2.0	0.31384E+16	0.87129E-02	0.44083E-03
(2P)	5D3D3.0	0.31431E+16	0.19517E-02	0.98895E-04
(2P)	5D3P1.0	0.31652E+16	0.17932E-02	0.91521E-04
(2P)	5D3P2.0	0.31634E+16	0.59773E-03	0.30484E-04
(2P)	6D3F2.0	0.33898E+16	0.11571E-03	0.63234E-05
(2P)	6D3F3.0	0.33911E+16	0.92567E-03	0.50607E-04
(2P)	6D3D1.0	0.33981E+16	0.40715E-03	0.22305E-04
(2P)	6D3D2.0	0.33985E+16	0.18849E-02	0.10327E-03
(2P)	6D3D3.0	0.34024E+16	0.42223E-03	0.23160E-04
(2P)	6D3P1.0	0.34149E+16	0.55395E-03	0.30496E-04
(2P)	6D3P2.0	0.34132E+16	0.14445E-03	0.10160E-04
(2P)	7D3F2.0	0.35471E+16	0.13260E-03	0.75829E-05
(2P)	7D3F3.0	0.35482E+16	0.10608E-02	0.60682E-04
(2P)	7D3D1.0	0.35592E+16	0.24853E-03	0.14260E-04
(2P)	7D3D2.0	0.35592E+16	0.11506E-02	0.66019E-04
(2P)	7D3D3.0	0.35595E+16	0.25774E-03	0.14790E-04
(2P)	7D3P1.0	0.35656E+16	0.24457E-03	0.14058E-04
(2P)	7D3P2.0	0.35656E+16	0.81522E-04	0.46861E-05
(2P)	8D3F2.0	0.36497E+16	0.86283E-03	0.50758E-04
(2P)	8D3F3.0	0.36488E+16	0.69026E-02	0.40604E-03
(2P)	8D3D1.0	0.36607E+16	0.15224E-03	0.89844E-05
(2P)	8D3D2.0	0.36607E+16	0.70478E-03	0.41593E-04
(2P)	8D3D3.0	0.36611E+16	0.15788E-03	0.93181E-05
(2P)	8D3P1.0	0.36633E+16	0.10413E-03	0.61495E-05
(2P)	8D3P2.0	0.36633E+16	0.34709E-04	0.20498E-05
(2P)	9D3F2.0	0.37183E+16	0.15765E-02	0.94501E-04
(2P)	9D3F3.0	0.37183E+16	0.12612E-01	0.75600E-03
(2P)	9D3D1.0	0.37296E+16	0.10024E-03	0.60270E-05
(2P)	9D3D2.0	0.37296E+16	0.46405E-03	0.27902E-04

(2P)	90303.0	0.37304E+16	0.10395E-03	0.62515E-05	0.5049484E+04
(2P)	100301.0	0.37795E+16	0.10703E-03	0.65213E-05	0.4983801E+04
(2P)	100302.0	0.37795E+16	0.49547E-03	0.30190E-04	0.4983801E+04
(2P)	100303.0	0.37803E+16	0.11099E-03	0.67641E-05	0.4982809E+04
(2P)	110301.0	0.38144E+16	0.32327E-04	0.19879E-05	0.4938270E+04
(2P)	110302.0	0.38144E+16	0.14966E-03	0.92029E-05	0.4938270E+04
(2P)	110303.0	0.38159E+16	0.33524E-04	0.20623E-05	0.4936320E+04

INTERACTIONS -- QUADRUPOLE -

0.28711E+16      0.36453E+03

10 - SEQ. NUM.

PR	FF	DESIG	LFVFL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		3P303.0	69744.000	2.277	90876.312	54.154	53.188

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(2P)	3S3P2.0	0.17614E+16	0.10540E+02	0.41901E+00	0.10694C4E+05
(2P)	4S3P2.0	0.15830E+16	0.56503E+01	0.14420E+00	0.1189909E+05
(2P)	3D3F2.0	0.15926E+16	0.69448E-01	0.17831E-02	0.1182732E+05
(2P)	3D3F3.0	0.15956E+16	0.24306E+01	0.62526E-01	0.1189498E+05
(2P)	3D3F4.0	0.16022E+16	0.28126E+02	0.72651E+00	0.1175641E+05
(2P)	3D3D2.0	0.16130E+16	0.60253E+00	0.15668E-01	0.1167815E+05
(2P)	3D3D3.0	0.16147E+16	0.48202E+01	0.12547E+00	0.1166589E+05
(2P)	3D3P2.0	0.18021E+16	0.30560E+00	0.88783E-02	0.1045259E+05
(2P)	4D3F2.0	0.26397E+16	0.10144E-02	0.43171E-04	0.7135719E+04
(2P)	4D3F3.0	0.26403E+16	0.35505E-01	0.15113E-02	0.7134191E+04
(2P)	4D3F4.0	0.26411E+16	0.41085E+00	0.17493E-01	0.7132156E+04
(2P)	4D3D2.0	0.26546E+16	0.11648E-01	0.49847E-03	0.7095719E+04
(2P)	4D3D3.0	0.26565E+16	0.93179E-01	0.39966E-02	0.7090687E+04
(2P)	4D3P2.0	0.27045E+16	0.13329E-01	0.58114E-03	0.6964758E+04
(2P)	5D3F2.0	0.31222E+16	0.70954E-04	0.35714E-05	0.5033180E+04
(2P)	5D3F3.0	0.31235E+16	0.24834E-02	0.12505E-03	0.6030633E+04
(2P)	5D3F4.0	0.31238E+16	0.28736E-01	0.14472E-02	0.6029906E+04
(2P)	5D3D2.0	0.31312E+16	0.13941E-02	0.70390E-04	0.6014312E+04
(2P)	5D3D3.0	0.31367E+16	0.11153E-01	0.56396E-03	0.6005281E+04
(2P)	5D3P2.0	0.31579E+16	0.23910E-02	0.12169E-03	0.5956586E+04
(2P)	6D3F2.0	0.33034E+16	0.23615E-05	0.12881E-06	0.5567309E+04
(2P)	6D3F3.0	0.33847E+16	0.82651E-04	0.45100E-05	0.5565137E+04
(2P)	6D3F4.0	0.33851E+16	0.95637E-03	0.52193E-04	0.5564520E+04
(2P)	6D3D2.0	0.33921E+16	0.30159E-03	0.16493E-04	0.5553086E+04
(2P)	6D3D3.0	0.33960E+16	0.24127E-02	0.13209E-03	0.5546617E+04
(2P)	6D3P2.0	0.34068E+16	0.73861E-03	0.40566E-04	0.5529137E+04
(2P)	7D3F2.0	0.35407E+16	0.27063E-05	0.15448E-06	0.5317996E+04
(2P)	7D3F3.0	0.35418E+16	0.94718E-04	0.54083E-05	0.5319297E+04
(2P)	7D3F4.0	0.35420E+16	0.10963E-02	0.62585E-04	0.5318016E+04
(2P)	7D3D2.0	0.35529E+16	0.18410E-03	0.10544E-04	0.5301945E+04
(2P)	7D3D3.0	0.35531E+16	0.14728E-02	0.84362E-04	0.5301383E+04
(2P)	7D3P2.0	0.35592E+16	0.32609E-03	0.18711E-04	0.5292402E+04
(2P)	8D3F2.0	0.36426E+16	0.17609E-04	0.10341E-05	0.5171164E+04
(2P)	8D3F3.0	0.36424E+16	0.61631E-03	0.36190E-04	0.5171430E+04
(2P)	8D3F4.0	0.36422E+16	0.71316E-02	0.41876E-03	0.5171699E+04
(2P)	8D3D2.0	0.36543E+16	0.11277E-03	0.66434E-05	0.5154637E+04
(2P)	8D3D3.0	0.36547E+16	0.90214E-03	0.53152E-04	0.5154105E+04
(2P)	8D3P2.0	0.36569E+16	0.13884E-03	0.81851E-05	0.5150922E+04
(2P)	9D3F2.0	0.37119E+16	0.32173E-04	0.19253E-05	0.5074594E+04
(2P)	9D3F3.0	0.37119E+16	0.11261E-02	0.67385E-04	0.5074594E+04
(2P)	9D3F4.0	0.37119E+16	0.13035E-01	0.77974E-03	0.5074594E+04
(2P)	9D3D2.0	0.37232E+16	0.74250E-04	0.44568E-05	0.5059191E+04
(2P)	9D3D3.0	0.37240E+16	0.59399E-03	0.35661E-04	0.5058168E+04
(2P)	10D3D2.0	0.37731E+16	0.79278E-04	0.48224E-05	0.4992262E+04
(2P)	10D3D3.0	0.37739E+16	0.63422E-03	0.38586E-04	0.4991262E+04
(2P)	11D3D2.0	0.38080E+16	0.23946E-04	0.14708E-05	0.4946574E+04
(2P)	11D3D3.0	0.38095E+16	0.19156E-03	0.11765E-04	0.4944617E+04

INTERACTIONS -- QUADRUPOLE -

0.28647E+16 0.15242E+04

ORIGINAL PAGE IS  
OF POOR QUALITY

11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		3P351.0	70744.000	2.334	90978.312	60.459	54.909

INTERACTIONS -- DIPOLF -  
DESIGNATION W

			RAA***2	F	W L VAC
(2P)	3S3P0.0	0.19611E+16	0.11538E+01	0.10943E+00	0.9605223E+04
(2P)	3S3P1.0	0.19573E+16	0.34613E+01	0.10922E+00	0.9623711E+04
(2P)	3S3P2.0	0.19498E+16	0.57689E+01	0.10880E+00	0.9660898E+04
(2P)	4S3P0.0	0.13866E+16	0.86618E+00	0.19362E-01	0.1358511E+05
(2P)	4S3P1.0	0.13844E+16	0.25985E+01	0.58179E-01	0.1356300E+05
(2P)	4S3P2.0	0.13847E+16	0.43109E+01	0.97375E-01	0.1350621E+05
(2P)	3D3P1.0	0.16167E+16	0.39595E+01	0.10315E+00	0.1165637E+05
(2P)	3D3P1.0	0.16152E+16	0.11878E+02	0.30931E+00	0.1166180E+05
(2P)	3D3P2.0	0.16137E+16	0.19797E+02	0.51504E+00	0.1167270E+05
(2P)	4D3P0.0	0.25180E+16	0.10388E+00	0.42178E-02	0.7474871E+04
(2P)	4D3P1.0	0.25181E+16	0.31162E+00	0.12650E-01	0.7480547E+04
(2P)	4D3P2.0	0.25162E+16	0.51939E+00	0.21068E-01	0.7486148E+04
(2P)	5D3P1.0	0.29715E+16	0.13299E-01	0.63706E-03	0.6339141E+04
(2P)	5D3P1.0	0.29711E+16	0.39895E-01	0.19109E-02	0.6339945E+04
(2P)	5D3P2.0	0.29686E+16	0.66493E-01	0.31823E-02	0.5345176E+04
(2P)	6D3P0.0	0.32180E+16	0.39370E-02	0.15756E-03	0.5853430E+04
(2P)	6D3P1.0	0.32201E+16	0.91107E-02	0.47296E-03	0.5849660E+04
(2P)	6D3P2.0	0.32184E+16	0.15185E-01	0.78786E-03	0.5852742E+04
(2P)	7D3P0.0	0.33706E+16	0.10811E-02	0.58745E-04	0.5588465E+04
(2P)	7D3P1.0	0.33708E+16	0.32432E-02	0.17624E-03	0.5588152E+04
(2P)	7D3P2.0	0.33708E+16	0.54054E-02	0.29374E-03	0.5588152E+04
(2P)	8D3P0.0	0.34686E+16	0.29116E-03	0.16281E-04	0.5430648E+04
(2P)	8D3P1.0	0.34686E+16	0.87346E-03	0.48842E-04	0.5430648E+04
(2P)	8D3P2.0	0.34686E+16	0.14559E-02	0.81405E-04	0.5430648E+04

PR	EE	DFSIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		3P3P2.0	71385.000	2.371	90876.312	64.870	62.333

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(2P)	353P1.0	0.20783E+16	0.25435E+01	0.14202E+00	0.9064539E+04
(2P)	353P2.0	0.20705E+16	0.76306E+01	0.25470E+00	0.9097523E+04
(2P)	453P1.0	0.12681E+16	0.22630E+01	0.48308E-01	0.1485443E+05
(2P)	453P2.0	0.12739E+16	0.70891E+01	0.14559E+00	0.1478634E+05
(2P)	303D1.0	0.13026E+16	0.32633E+00	0.68526E-02	0.1446131E+05
(2P)	303D2.0	0.13029E+16	0.48949E+01	0.10289E+00	0.1444669E+05
(2P)	303P1.0	0.13056E+16	0.27412E+02	0.57695E+00	0.1442793E+05
(2P)	303P2.0	0.14945E+16	0.24441E+01	0.58886E-01	0.1260398E+05
(2P)	303P2.0	0.14930E+16	0.73322E+01	0.17644E+00	0.1261670E+05
(2P)	403D1.0	0.23442E+16	0.10806E-02	0.40839E-04	0.8035355E+04
(2P)	403D2.0	0.23455E+16	0.16209E-01	0.61292E-03	0.8030836E+04
(2P)	403P1.0	0.23474E+16	0.90772E-01	0.34351E-02	0.8024391E+04
(2P)	403P2.0	0.23973E+16	0.12929E-01	0.15959E-02	0.7857309E+04
(2P)	403P2.0	0.23954E+16	0.12387E+00	0.47838E-02	0.7863488E+04
(2P)	503D1.0	0.28227E+16	0.13945E-06	0.63458E-08	0.6673340E+04
(2P)	503D2.0	0.28228E+16	0.20919E-05	0.95192E-07	0.6672895E+04
(2P)	503P1.0	0.28275E+16	0.11714E-04	0.53397E-06	0.6651781E+04
(2P)	503P2.0	0.28503E+16	0.35147E-02	0.16151E-03	0.6608512E+04
(2P)	503P2.0	0.28479E+16	0.10544E-01	0.48410E-03	0.6614191E+04
(2P)	603D1.0	0.30826E+16	0.37137E-04	0.18456E-05	0.6110602E+04
(2P)	603D2.0	0.30830E+16	0.55705E-03	0.27687E-04	0.6109852E+04
(2P)	603P1.0	0.30869E+16	0.31195E-02	0.15525E-03	0.5102023E+04
(2P)	603P2.0	0.30994E+16	0.46916E-03	0.23442E-04	0.6077547E+04
(2P)	603P2.0	0.30977E+16	0.14075E-02	0.70288E-04	0.6080875E+04
(2P)	703D1.0	0.32436E+16	0.15574E-04	0.91439E-06	0.5807193E+04
(2P)	703D2.0	0.32436E+16	0.23360E-03	0.12216E-04	0.5807199E+04
(2P)	703D2.0	0.32440E+16	0.13082E-02	0.58416E-04	0.5806523E+04
(2P)	703P1.0	0.32501E+16	0.94505E-04	0.49517E-05	0.5795754E+04
(2P)	703P2.0	0.32501E+16	0.28351E-03	0.14855E-04	0.5795754E+04
(2P)	803D1.0	0.33452E+16	0.95857E-05	0.51695E-06	0.5630945E+04
(2P)	803D2.0	0.33452E+16	0.14374E-03	0.77541E-05	0.5670945E+04
(2P)	803P1.0	0.33456E+16	0.90519E-03	0.43428E-04	0.5630312E+04
(2P)	803P2.0	0.33479E+16	0.65334E-06	0.35262E-07	0.5626512E+04
(2P)	803P2.0	0.33474E+16	0.19600E-05	0.10578E-06	0.5626512E+04
(2P)	903D1.0	0.34141E+16	0.64486E-05	0.35493E-06	0.5517278E+04
(2P)	903D2.0	0.34141E+16	0.96728E-04	0.53239E-05	0.5517238E+04
(2P)	903D3.0	0.34149E+16	0.54168E-03	0.29821E-04	0.5516023E+04
(2P)	1003D1.0	0.34640E+16	0.81814E-06	0.45689E-07	0.5437734E+04
(2P)	1003D2.0	0.34640E+16	0.12272E-04	0.68533E-06	0.5437734E+04
(2P)	1003D3.0	0.34648E+16	0.68723E-04	0.3887E-05	0.5436555E+04
(2P)	1103D1.0	0.34999E+16	0.73276E-05	0.41333E-06	0.5383578E+04
(2P)	1103D2.0	0.34989E+16	0.10991E-03	0.61998E-05	0.5383578E+04
(2P)	1103D3.0	0.35004E+16	0.61551E-03	0.34734E-04	0.5381262E+04

## INTERACTIONS -- QUADRUPOLE -

0.18725E+16	0.36996E+03
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## 13 - SEQ. NUM.

PR	EE	DESIG	LEVFL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(2P)		3P1SG.0	73976.000	2.547	90876.312	89.001	86.538

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(2P)	3S1P1.0	0.22593E+16	0.97906E+01	0.11887E+00	0.8337503E+04
(2P)	4S1P1.0	0.82165E+15	0.18998E+02	0.25165E+00	0.2292526E+05
(2P)	301P1.0	0.89492E+15	0.56524E+02	0.81550E+00	0.2104820E+05
(2P)	5S1P1.0	0.18653E+16	0.42247E+00	0.12709E-01	0.1009489E+05
(2P)	4D1P1.0	0.14942E+16	0.20441E+00	0.62423E-02	0.9944309E+04
(2P)	6S1P1.0	0.23427E+16	0.10642E+00	0.40194E-02	0.8040523E+04
(2P)	5D1P1.0	0.23574E+16	0.21518E+00	0.81773E-02	0.7990410E+04
(2P)	7S1P1.0	0.26030E+16	0.49742E-01	0.20874E-02	0.7236410E+04
(2P)	6D1P1.0	0.26098E+16	0.13234E+00	0.55679E-02	0.7217609E+04
(2P)	7D1P1.0	0.27607E+16	0.94902E-01	0.42237E-02	0.6823141E+04

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(2P)		3D1D2.0	77680.000	2.883	90876.312	102.163	39.349

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(2P)	3P1P1.0	0.16618E+16	0.15653E+02	0.69888E+00	0.1133530E+05
(2P)	3P1D2.0	0.25482E+15	0.73363E+01	0.11293E+00	0.1972775E+05
(2P)	4P1P1.0	0.54306E+15	0.13729E+02	0.12019E+00	0.3468609E+05
(2P)	4P1D2.0	0.77041E+15	0.23247E+01	0.28873E-01	0.2444987E+05
(2P)	5P1P1.0	0.13510E+16	0.23095E+00	0.43765E-02	0.1394311E+05
(2P)	5P1D2.0	0.14542E+16	0.10564E+00	0.24765E-02	0.1295337E+05



## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		453P1.0	78117.000	2.933	90878.312	189.435	188.156

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC	
(2P)	3P3D1.0	0.15875E+16	0.23543E+01	0.60254E-01	0.1186521E+05
(2P)	3P3D2.0	0.15836E+16	0.79628E+01	0.10819E+00	0.1189485E+05
(2P)	3P3S1.0	0.13888E+16	0.25985E+01	0.58179E-01	0.1356300E+05
(2P)	3P3D0.0	0.12743E+16	0.31507E+01	0.19418E+00	0.1478196E+05
(2P)	3P3D1.0	0.12718E+16	0.23627E+01	0.48449E-01	0.1481043E+05
(2P)	3P3P2.0	0.12691E+16	0.39384E+01	0.48308E-01	0.1485443E+05
(2P)	4P3D1.0	0.39729E+15	0.24173E+02	0.15092E+00	0.4863813E+05
(2P)	4P3D2.0	0.39086E+15	0.72518E+02	0.45695E+00	0.4819277E+05
(2P)	4P3S1.0	0.56283E+15	0.18026E+02	0.16355E+00	0.3346720E+05
(2P)	4P3D0.0	0.40164E+15	0.17321E+02	0.16800E+00	0.3130870E+05
(2P)	4P3P1.0	0.60446E+15	0.12990E+02	0.12659E+00	0.3116236E+05
(2P)	4P3P2.0	0.60785E+15	0.21652E+02	0.21217E+00	0.3098853E+05
(2P)	5P3D1.0	0.12683E+16	0.21342E-02	0.43637E-04	0.1485222E+05
(2P)	5P3D2.0	0.12875E+16	0.64026E-02	0.13289E-03	0.1463057E+05

## 16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		3D3D1.0	78300.000	2.954	90878.312	116.304	45.920

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC	
(2P)	3P3D1.0	0.16220E+16	0.40671E+01	0.10635E+00	0.1161305E+05
(2P)	3P3D2.0	0.16181E+16	0.13557E+01	0.21218E-01	0.1164144E+05
(2P)	3P3P0.0	0.13088E+16	0.10878E+02	0.68853E+00	0.1439263E+05
(2P)	3P3P1.0	0.13063E+16	0.41582E+01	0.17181E+00	0.1441961E+05
(2P)	3P3P2.0	0.13029E+16	0.54399E+00	0.68525E-02	0.1446131E+05
(2P)	4P3D1.0	0.35281E+15	0.52457E+01	0.29435E-01	0.5339028E+05
(2P)	4P3D2.0	0.35639E+15	0.17486E+01	0.10046E-01	0.5285412E+05
(2P)	4P3P0.0	0.56717E+15	0.76998E+01	0.70404E-01	0.3321155E+05
(2P)	4P3P1.0	0.56990E+15	0.57748E+01	0.53065E-01	0.3304693E+05
(2P)	4P3P2.0	0.57333E+15	0.38499E+00	0.35588E-02	0.3285151E+05
(2P)	5P3D1.0	0.12338E+16	0.47695E-01	0.94867E-03	0.1526717E+05
(2P)	5P3D2.0	0.12530E+16	0.15898E-01	0.32115E-03	0.1503307E+05

## INTERACTIONS -- QUADRUPOLE -

0.21963E+16	0.45689E+04
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## 17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		4S1P1.0	74338.000	2.957	90878.312	195.611	189.977

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(2P)	* 2P1S7.0	0.10678E+17	0.13623E-01	0.1763979E+04
(2P)	3P1P1.0	0.17857E+16	0.38322E+01	0.1054852E+05
(2P)	3P1D2.0	0.10788E+16	0.21351E+02	0.1746115E+05
(2P)	3P1S4.0	0.82165E+15	0.63326E+01	0.2292526E+05
(2P)	4P1P1.0	0.41911E+15	0.59464E+02	0.4494382E+05
(2P)	4P1D2.0	0.64647E+15	0.82939E+02	0.2913753E+05
(2P)	4P1S4.0	0.73726E+15	0.14024E+02	0.2554931E+05
(2P)	5P1P1.0	0.12270E+16	0.11407E+00	0.1535155E+05
(2P)	5P1D2.0	0.13302E+16	0.13818E+01	0.1416029E+05
(2P)	5P1S4.0	0.13726E+16	0.52467E+00	0.1372307E+05

## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		3D1F3.0	74531.000	2.980	90878.312	121.807	46.798

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(2P)	3P1D2.0	0.11151E+16	0.29534E+02	0.1689189E+05
(2P)	4P1D2.0	0.61011E+15	0.16724E+02	0.3087372E+05
(2P)	5P1D2.0	0.12939E+16	0.54028E+00	0.1455816E+05

## 19 - SEQ. NUM.

PR EE DESIG (2P)	3D1P1.0	LEVEL 78727.000	N EFF 3.004	S. LIMIT 90878.312	RAA**2 126.943	S. RAA***2 48.807
INTERACTIONS -- DIPOLE -						
DESIGNATION	W	RAA***2	F	W L VAC		
(2P) * 2P1SC.0	0.10752E+17	0.49349E-01	0.25662E-01	0.1751958F+04		
(2P) 3P1P1.0	0.18590E+16	0.76501E+01	0.22927E+00	0.1013274E+05		
(2P) 3P1D2.0	0.11520E+16	0.81438E+00	0.90751E-02	0.1635055E+05		
(2P) 3P1S0.0	0.99492E+15	0.18841F+02	0.81550E+00	0.2104820E+05		
(2P) 4P1P1.0	0.34584E+15	0.12823E+02	0.71492E-01	0.5446623F+05		
(2P) 4P1D2.0	0.57320E+15	0.52746E+00	0.48741E-02	0.3266230E+05		
(2P) 4P1S0.0	0.66397E+15	0.76930E+01	0.82349E-01	0.2836879E+05		
(2P) 5P1P1.0	0.11537E+16	0.42172E-01	0.78439E-03	0.1632653E+05		
(2P) 5P1D2.0	0.12570E+16	0.15265E-01	0.30933E-03	0.1498576E+05		
(2P) 5P1S0.0	0.12993E+16	0.35161E+00	0.73653E-02	0.1449695E+05		

## INTERACTIONS -- QUADRUPOLE -

0.18659E+16 0.19237E+04

## 20 - SEQ. NUM.

PR EE DESIG (2P)	3D3P2.0	LFVFL 79311.000	N EFF 3.080	S. LIMIT 90878.312	RAA**2 144.061	S. RAA***2 55.334
INTERACTIONS -- DIPOLE -						
DESIGNATION	W	RAA***2	F	W L VAC		
(2P) 3P3D1.0	0.18124E+16	0.50934E-02	0.24804E-03	0.1039285E+05		
(2P) 3P3D2.0	0.18085E+16	0.76399E-01	0.22275E-02	0.1041558F+05		
(2P) 3P3D3.0	0.18021E+16	0.42784E+00	0.88783E-02	0.1045259E+05		
(2P) 3P3S1.0	0.16137E+15	0.11878E+02	0.51504E+00	0.1167270E+05		
(2P) 3P3P1.0	0.14967E+16	0.24441E+01	0.98292E-01	0.1258495F+05		
(2P) 3P3P2.0	0.14930E+16	0.73322E+01	0.17648E+00	0.1261670E+05		
(2P) 4P3D1.0	0.16237E+15	0.11865E-01	0.31058E-04	0.1160092E+06		
(2P) 4P3D2.0	0.14595E+15	0.17797E+00	0.47613E-03	0.1135074E+06		
(2P) 4P3D3.0	0.17160E+15	0.99665E+00	0.27572E-02	0.1097694E+06		
(2P) 4P3S1.0	0.33793E+15	0.19439E+02	0.10590E+00	0.5574136E+05		
(2P) 4P3P1.0	0.37956E+15	0.33857E+01	0.20717E-01	0.4962779E+05		
(2P) 4P3P2.0	0.38295E+15	0.10157E+02	0.62706E-01	0.4918839F+05		
(2P) 5P3D1.0	0.10434E+16	0.11951E-04	0.20102E-06	0.1805380E+05		
(2P) 5P3D2.0	0.10626E+16	0.17926E-03	0.30708E-05	0.1772735E+05		
(2P) 5P3D3.0	0.10690E+16	0.10039E-02	0.17300E-04	0.1762114E+05		

## INTERACTIONS -- QUADRUPOLE -

0.18549E+16 0.20116E+04

PR EF	D SIG	LEVEL	N FFF	S. LIMIT	RAA**2	S. RAA***2
(2P)	4P3D3.0	80222.000	3.205	90878.312	239.143	217.819

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	W L VAC
(2P) 3S3P2.0	0.37351E+16	0.10934E+00	0.92174E-02	0.5043117E+04
(2P) 4S3P2.0	0.39067E+15	0.58016E+02	0.51155E+00	0.4821600E+05
(2P) 3D3F2.0	0.38106E+15	0.85523E-01	0.73555E-03	0.4943154E+05
(2P) 3D3F3.0	0.37805E+15	0.29933E+01	0.18243E-01	0.4982561E+05
(2P) 3D3F4.0	0.37146E+15	0.34637E+02	0.16131E+00	0.5070994E+05
(2P) 3D3D2.0	0.36072E+15	0.77715E+00	0.63271E-02	0.5221932E+05
(2P) 3D3D3.0	0.35902E+15	0.62171E+01	0.35984E-01	0.5246589E+05
(2P) 3D3P2.0	0.17160E+15	0.71189E+00	0.27572E-02	0.1097694E+06
(2P) 4D3F2.0	0.66606E+15	0.20711E+00	0.22239E-02	0.2828054E+05
(2P) 4D3F3.0	0.66662E+15	0.72486E+01	0.77900E-01	0.2825657E+05
(2P) 4D3F4.0	0.66733E+15	0.83877E+02	0.90244E+00	0.2822467E+05
(2P) 4D3D2.0	0.68094E+15	0.17314E+01	0.19011E-01	0.2766252E+05
(2P) 4D3D3.0	0.68282E+15	0.13854E+02	0.15251E+00	0.2758620E+05
(2P) 4D3P2.0	0.73086E+15	0.86040E+00	0.10138E-01	0.2577320E+05
(2P) 5D3F2.0	0.11489E+16	0.94756E-02	0.17544E-03	0.1640151E+05
(2P) 5D3F3.0	0.11499E+16	0.33164E+00	0.61474E-02	0.1638270E+05
(2P) 5D3F4.0	0.11502E+16	0.38376E+01	0.71158E-01	0.1637733E+05
(2P) 5D3D2.0	0.11583E+16	0.94552E-01	0.17655E-02	0.1626280E+05
(2P) 5D3D3.0	0.11630E+16	0.75641E+00	0.14182E-01	0.1619695E+05
(2P) 5D3P2.0	0.11833E+16	0.69120E-01	0.13185E-02	0.1591850E+05
(2P) 6D3F2.0	0.14097E+16	0.17244E-02	0.39190E-04	0.1336184E+05
(2P) 6D3F3.0	0.14110E+16	0.60352E-01	0.13729E-02	0.1334935E+05
(2P) 6D3F4.0	0.14114E+16	0.69837E+00	0.15891E-01	0.1334579E+05
(2P) 6D3D2.0	0.14194E+16	0.21242E-01	0.48572E-03	0.1328021E+05
(2P) 6D3D3.0	0.14223E+16	0.16993E+00	0.38966E-02	0.1324328E+05
(2P) 6D3P2.0	0.14331E+16	0.17934E-01	0.41446E-03	0.1314406E+05
(2P) 7D3F2.0	0.15670E+16	0.44334E-03	0.11200E-04	0.1202067E+05
(2P) 7D3F3.0	0.15681E+16	0.15517E-01	0.39228E-03	0.1201201E+05
(2P) 7D3F4.0	0.15683E+16	0.17955E+00	0.45394E-02	0.1201057E+05
(2P) 7D3D2.0	0.15791E+16	0.91297E-02	0.23241E-03	0.1192890E+05
(2P) 7D3D3.0	0.15794E+16	0.73337E-01	0.18597E-02	0.1192605E+05
(2P) 7D3P2.0	0.15855E+16	0.73435E-02	0.18770E-03	0.1184071E+05
(2P) 8D3F2.0	0.16689E+16	0.82498E-04	0.22196E-05	0.1128668E+05
(2P) 8D3F3.0	0.16687E+16	0.28874E-02	0.77673E-04	0.1128795E+05
(2P) 8D3F4.0	0.16685E+16	0.33412E-01	0.99875E-03	0.1128923E+05
(2P) 8D3D2.0	0.16806E+16	0.48294E-02	0.13085E-03	0.1120825E+05
(2P) 8D3D3.0	0.16810E+16	0.38635E-01	0.10470E-02	0.1120573E+05
(2P) 8D3P2.0	0.16832E+16	0.35299E-02	0.95788E-04	0.1119069E+05
(2P) 9D3F3.0	0.17382E+16	0.28835E-05	0.80803E-07	0.1083658E+05
(2P) 9D3F4.0	0.17382E+16	0.33366E-04	0.93501E-06	0.1083658E+05
(2P) 9D3D2.0	0.17495E+16	0.29108E-02	0.82099E-04	0.1076654E+05
(2P) 9D3D3.0	0.17503E+16	0.23286E-01	0.65706E-03	0.1076195E+05
(2P) 10D3D2.0	0.17995E+16	0.21529E-02	0.62454E-04	0.1046791E+05
(2P) 10D3D3.0	0.18002E+16	0.17223E-01	0.49984E-03	0.1046353E+05
(2P) 11D3D2.0	0.18343E+16	0.11900E-02	0.35190E-04	0.1026905E+05
(2P) 11D3D3.0	0.18354E+16	0.95199E-02	0.28175E-03	0.1026062E+05

## INTERACTIONS -- QUADRUPOLE -

0.19840E+16	0.21054E+05
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22 - SF0. NUM.

PR	FF	D=SIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P1P1.0	80563.000	3.261	90878.312	255.008	255.300

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(2P) 3S1P1.0	0.35000E+16	0.10670E+00	0.60207E-02	0.5381840E+04	
(2P) 3D1D2.0	0.54306E+15	0.22882E+02	0.12019E+00	0.3458609E+05	
(2P) 4S1P1.0	0.41911E+15	0.59464E+02	0.40178E+00	0.4494382E+05	
(2P) 3D1P1.0	0.34584E+15	0.12823E+02	0.71492E-01	0.5446623E+05	
(2P) 4D1D2.0	0.55323E+15	0.10577E+03	0.94336E+00	0.3404835E+05	
(2P) 5S1P1.0	0.62518E+15	0.22011E+02	0.22186E+00	0.3012955E+05	
(2P) 4D1P1.0	0.65344E+15	0.27459E+02	0.28926E+00	0.2882675E+05	
(2P) 5D1D2.0	0.10594E+16	0.14481E+01	0.24732E-01	0.1778094E+05	
(2P) 6S1P1.0	0.11019E+16	0.17124E+01	0.30421E-01	0.1709402E+05	
(2P) 5D1P1.0	0.11166E+16	0.15355E+01	0.27642E-01	0.1686909E+05	
(2P) 6D1D2.0	0.13316E+16	0.92884E-01	0.19939E-02	0.1414627E+05	
(2P) 7S1P1.0	0.13623E+16	0.49787E+00	0.10934E-01	0.1382743E+05	
(2P) 6D1P1.0	0.13690E+16	0.36426E+00	0.80396E-02	0.1375894E+05	
(2P) 7D1P1.0	0.15199E+16	0.13121E+00	0.32151E-02	0.1239311E+05	

INTERACTIONS -- QUADRUPOLE -	
0.22048E+16	0.50399E+04

23 - SF0. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P102.0	81770.000	3.470	90878.312	332.243	331.045

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	3S1P1.0	0.37274E+16	0.12409E+00	0.12427E-01	0.5053566F+C4
(2P)	3D102.0	0.77041E+15	0.23247E+01	0.28873E-01	0.2444987F+C5
(2P)	4S1P1.0	0.64647E+15	0.49763E+02	0.86439E+00	0.2913753E+05
(2P)	3D1F3.0	0.61011E+15	0.23414F+02	0.16450E+00	0.3087372F+05
(2P)	3D1P1.0	0.57321F+15	0.31648F+00	0.48741E-02	0.3286230F+05
(2P)	4D102.0	0.32587E+15	0.33783E+02	0.16172F+00	0.5780346E+05
(2P)	5S1P1.0	0.39793E+15	0.57673E+02	0.36989E+00	0.4734848E+C5
(2P)	4D1F3.0	0.41045E+15	0.16157F+03	0.10691E+01	0.4589261E+05
(2P)	4D1P1.0	0.42603E+15	0.18805F+C1	0.12917E-01	0.4420866F+05
(2P)	5D102.0	0.43201E+15	0.14165E+00	0.19003E-02	0.2263980E+05
(2P)	6S1P1.0	0.47458E+15	0.17498E+01	0.24672E-01	0.2153780E+05
(2P)	5D1F3.0	0.48155E+15	0.68357E+03	0.97147E-02	0.2136752E+05
(2P)	5D1P1.0	0.49927E+15	0.13408E-01	0.19221E-03	0.2118195E+05
(2P)	6D102.0	0.11042E+16	0.13812E+00	0.24585E-02	0.1705902E+05
(2P)	7S1P1.0	0.11349E+16	0.44763E+00	0.81899E-02	0.1659751E+C5
(2P)	6D1F3.0	0.11372E+16	0.18103E-01	0.33187E-03	0.1656452E+C5
(2P)	6D1P1.0	0.11417E+16	0.86154E-03	0.15857E-04	0.1649893E+05
(2P)	7D1F3.0	0.12911E+16	0.78850E-05	0.16412E-06	0.1459002E+05
(2P)	7D1P1.0	0.12926E+16	0.23618E-04	0.49214E-06	0.1457301E+05
(2P)	8D1F3.0	0.13911E+16	0.99135F-03	0.22232E-04	0.1354096E+05
(2P)	9D1F3.0	0.14593E+16	0.21459E-C2	0.50484E-04	0.1290822E+05

24 - SF0. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P150.0	82252.000	3.566	90878.312	372.339	370.017

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	3S1P1.0	0.38192E+16	0.31133E+C0	0.63878E-02	0.4933398E+04
(2P)	4S1P1.0	0.73726E+15	0.42073E+02	0.16669E+00	0.2554931E+C5
(2P)	3D1P1.0	0.66399E+15	0.23079E+C2	0.82349E-01	0.2836879E+05
(2P)	5S1P1.0	0.30704E+15	0.70834E+02	0.39517E+00	0.6134969E+05
(2P)	4D1P1.0	0.33529E+15	0.22310E+C3	0.12059E+01	0.5617977E+05
(2P)	6S1P1.0	0.78179E+15	0.11093E+01	0.14017E-01	0.2403268E+05
(2P)	5D1P1.0	0.79848E+15	0.19383E-02	0.24951E-04	0.2359047E+05
(2P)	7S1P1.0	0.10441E+16	0.26571E+00	0.44726E-02	0.1804077E+05
(2P)	6D1P1.0	0.10509E+16	0.10943E+00	0.18539E-02	0.1792436E+05
(2P)	7D1P1.0	0.12018E+16	0.13596E+00	0.26341E-02	0.1567398E+05

## 25 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		4DIP1.0	84C32.000	4.003	90878.312	505.439	198.212

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA***2	F	W L VAC
(2P) * 2P15.0	0.11751E+17	0.20580E-01	0.1602975E+04
(2P) 3P1P1.0	0.28583E+16	0.35855E+00	0.6590219E+04
(2P) 3P1D2.0	0.21513E+16	0.11089E-02	0.8755797E+04
(2P) 3P15.0	0.18942E+16	0.68135E-01	0.9944309E+04
(2P) 4P1P1.0	0.65344E+15	0.27459E+02	0.2882675E+05
(2P) 4P1D2.0	0.42608E+15	0.31341E+01	0.4420866E+05
(2P) 4P15.0	0.33529E+15	0.74366E+02	0.5617977E+05
(2P) 5P1P1.0	0.15446E+15	0.55795E+02	0.1219512E+06
(2P) 5P1D2.0	0.25768E+15	0.23465E+01	0.7309937E+05
(2P) 5P15.0	0.30007E+15	0.34664E+02	0.6277464E+05

## INTERACTIONS -- QUADRUPOLE -

0.99928E+15	0.21677E+05
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## 26 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		5P1P1.0	84B52.000	4.266	90878.312	782.564	783.411

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA***2	F	W L VAC
(2P) 3S1P1.0	0.43079E+16	0.50036E-01	0.4372539E+04
(2P) 3D1D2.0	0.13510E+16	0.33491E+00	0.1394311E+05
(2P) 4S1P1.0	0.12270E+16	0.11407E+00	0.1535155E+05
(2P) 3D1P1.0	0.11537E+16	0.42172E-01	0.1632653E+05
(2P) 4D1D2.0	0.25447E+15	0.10106E+03	0.7396444E+05
(2P) 5S1P1.0	0.18271E+15	0.14311E+03	0.1030927E+06
(2P) 4D1P1.0	0.15446E+15	0.55795E+02	0.1219512E+06
(2P) 5D1D2.0	0.25147E+15	0.28890E+03	0.7490631E+05
(2P) 6S1P1.0	0.29404E+15	0.69512E+02	0.6406150E+05
(2P) 5D1P1.0	0.30873E+15	0.68404E+02	0.5101281E+05
(2P) 6D1D2.0	0.52366E+15	0.42234E+01	0.3597122E+05
(2P) 7S1P1.0	0.55436E+15	0.48078E+01	0.3397893E+05
(2P) 6D1P1.0	0.56114E+15	0.41014E+01	0.3356831E+05
(2P) 7D1P1.0	0.71202E+15	0.95932E+00	0.2645502E+05

## INTERACTIONS -- QUADRUPOLE -

0.30127E+16	0.46009E+04
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27 - SEQ. NUM.

PR EF DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P) 5P1D2.0	854C0.000	4.474	90878.312	951.863	951.864

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 7S1P1.0	0.44111E+16	0.15967E-01	0.18925E-02	0.4270219E+04
(2P) 3D1D2.0	0.14542E+16	0.10564E+00	0.24765E-02	0.1295337E+05
(2P) 4S1P1.0	0.13372E+16	0.82906E+00	0.29632E-01	0.1416029E+05
(2P) 3D1F3.0	0.12939E+16	0.75639E+00	0.11270E-01	0.1455816E+05
(2P) 3D1P1.0	0.12573E+16	0.91593E-02	0.30933E-03	0.1494576E+05
(2P) 4D1D2.0	0.35743E+15	0.10504E+02	0.60608E-01	0.5263158E+05
(2P) 5S1P1.0	0.28594E+15	0.14429E+03	0.11085E+01	0.6587612E+05
(2P) 4D1F3.0	0.27332E+15	0.10685E+03	0.33630E+00	0.6891794E+05
(2P) 4D1P1.0	0.25768E+15	0.14079E+01	0.97477E-02	0.7309937E+05
(2P) 5D1D2.0	0.14824E+15	0.84983E+02	0.20310E+00	0.1270647E+06
(2P) 6S1P1.0	0.19081E+15	0.16664E+03	0.51260E+00	0.9871662E+05
(2P) 5D1F3.0	0.19778E+15	0.42218E+03	0.13461E+01	0.9523806E+05
(2P) 5D1P1.0	0.20551E+15	0.48765E+01	0.16156E-01	0.9165900E+05
(2P) 6D1D2.0	0.42043E+15	0.22528E+00	0.15269E-02	0.4480287E+05
(2P) 7S1P1.0	0.45113E+15	0.44592E+01	0.32432E-01	0.4175365E+05
(2P) 6D1F3.0	0.45330E+15	0.32757E+01	0.23941E-01	0.4154549E+05
(2P) 6D1P1.0	0.45792E+15	0.54608E-01	0.40313E-03	0.4113533E+05
(2P) 7D1F3.0	0.60729E+15	0.27830E+00	0.27247E-02	0.3101737E+05
(2P) 7D1P1.0	0.60880E+15	0.47205E-02	0.46330E-04	0.3094059E+05
(2P) 8D1F3.0	0.70731E+15	0.54050E-01	0.61633E-03	0.2663116E+05
(2P) 9D1F3.0	0.77550E+15	0.11843E-01	0.14606E-03	0.2428953E+05



NITROGEN ----- 7 ----- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(3P)	117345.000
	2	(1D)	131870.000 *

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS			
1	(3P) 2P4S1.5	0.0			
2	(3P) 2P2D1.5	19231.00	19223.00		
3	(1D) 2P2D1.5	19231.00	19223.00		
4	(3P) 2P2P0.5	28840.00	28840.00		
5	(1D) 2P2P0.5	28840.00	28840.00		
6	(3P) 3S4P0.5	83285.00	83319.00	83366.00	
7	(3P) 3S2P0.5	86131.00	85223.00		
8	(3P) 3P2S0.5	93582.00			
9	(3P) 3P4D0.5	94772.00	94794.00	94832.00	94883.00
10	(3P) 3P4P0.5	95476.00	95494.00	95533.00	
11	(3P) 3P4S1.5	96751.00			
12	(3P) 3P2D1.5	96788.00	96854.00		
13	(3P) 3P2P0.5	97770.00	97805.00		
14	(1D) 3S2D1.5	99658.00	99655.00		
15	(3P) 4S4P0.5	103618.00	103569.00	103736.00	
16	(3P) 4S2P0.5	104142.00	104227.00		
17	(3P) 3D2P0.5	104654.00	104615.00		
18	(3P) 3D4F1.5	104665.00	104534.00	104718.00	104767.00
19	(3P) 3D2F2.5	104910.00	104932.00		
20	(3P) 3D4P0.5	104864.00	104990.00	104957.00	
21	(3P) 3D4D0.5	104987.00	104999.00	105011.00	105020.00
22	(3P) 3D2D1.5	105120.00	105144.00		
23	(3P) 4P2S0.5	106478.00			
24	(3P) 4P4D0.5	106760.00	106730.00	106816.00	106870.00
25	(3P) 4P4P0.5	106982.00	106999.00	107039.00	
26	(3P) 4P4S1.5	107447.00			
27	(3P) 5S4P0.5	109813.00	109857.00	109927.00	
28	(3P) 5S2P0.5	110029.00	110109.00		
29	(3P) 4D4F1.5	110196.00	110214.00	110248.00	110304.00
30	(3P) 4D4D0.5	110221.00	110275.00	110288.00	110339.00
31	(3P) 4D2P0.5	110244.00	110221.00		
32	(3P) 4D2F2.5	110311.00	110373.00		
33	(3P) 4D4P0.5	110325.00	110351.00	110403.00	
34	(3P) 4D2D1.5	110448.00	110470.00		
35	(1D) 3P2D1.5	110521.00	110545.00		
36	(1D) 3P2P0.5	112294.00	112320.00		
37	(3P) 6S4P0.5	112565.00	112510.00	112682.00	
38	(3P) 6S2P0.5	112735.00	112323.00		
39	(3P) 5D4F1.5	112751.00	112753.00	112799.00	112862.00
40	(3P) 5D2P0.5	112816.00	112901.00		
41	(3P) 5D2F2.5	112820.00	112890.00		
42	(3P) 5D4D0.5	112825.00	112925.00	112825.00	112892.00
43	(3P) 5D4P0.5	112855.00	112974.00	112912.00	
44	(3P) 5D2D1.5	112929.00	112947.00		

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Table 6. Nitrogen

# TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS			
45	(3P) 7S4P0.5	114015.00	114072.00	114146.00	
46	(3P) 7S2P0.5	114130.00	114153.00		
47	(3P) 6D4F1.5	114160.00	114150.00	114160.00	114160.00
48	(3P) 6D4D0.5	114182.00	114132.00	114182.00	114248.00
49	(3P) 6D2P0.5	114209.00	114193.00		
50	(3P) 6D2F2.5	114196.00	114275.00		
51	(3P) 6D2D1.5	114232.00	114290.00		
52	(3P) 6D4P0.5	114259.00	114259.00	114274.00	
53	(3P) 8S4P0.5	114809.00	114890.00	114942.00	
54	(3P) 8S2P0.5	114950.00	114950.00		
55	(3P) 7D4D0.5	114988.00	114938.00	114988.00	114988.00
56	(3P) 7D2F2.5	115004.00	115004.00		
57	(3P) 7D2P0.5	115017.00	115017.00		
58	(3P) 7D2D1.5	115057.00	115100.00		
59	(3P) 7D4P0.5	115103.00	115103.00	115103.00	
60	(3P) 9S2P0.5	115480.00	115490.00		
61	(3P) 9S4P0.5	115483.00	115433.00	115483.00	
62	(3P) 8D4D0.5	115524.00	115524.00	115524.00	115524.00
63	(3P) 8D2P0.5	115530.00	115530.00		
64	(3P) 8D2F2.5	115535.00	115535.00		
65	(3P) 8D2D1.5	115597.00	115622.00		
66	(3P) 8D4P0.5	115518.00	115618.00	115618.00	
67	(3P) 10S2P0.5	115842.00	115842.00		
68	(3P) 10S4P0.5	115855.00	115835.00	115855.00	
69	(3P) 9D4D0.5	115887.00	115837.00	115887.00	115887.00
70	(3P) 9D2P0.5	115889.00	115899.00		
71	(3P) 9D2F2.5	115902.00	115902.00		
72	(3P) 9D2D1.5	115973.00	115991.00		
73	(3P) 9D4P0.5	115990.00	115990.00	115990.00	
74	(3P) 11S2P0.5	116107.00	116107.00		
75	(3P) 11S4P0.5	116124.00	116124.00	116124.00	
76	(3P) 10D2P0.5	116155.00	116155.00		
77	(3P) 10D2F2.5	116159.00	116159.00		
78	(3P) 10D4D0.5	116164.00	116164.00	116164.00	116164.00
79	(3P) 10D2D1.5	116240.00	116240.00		
80	(3P) 10D4P0.5	116259.00	116259.00	116259.00	
81	(3P) 12S2P0.5	116305.00	116305.00		
82	(3P) 12S4P0.5	116312.00	116312.00	116312.00	
83	(3P) 11D2P0.5	116351.00	116351.00		

1 - SEQ. NUM.

PR EE DESIG LEVEL  
(3P) \* 2P4S1.5 0.0

N EFF S. LIMIT  
0.967 117345.000

RAA\*\*2 S. RAA\*\*\*2  
0.0 0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

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2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)	*	2P2D2.5	19223.000	1.057	117345.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION                      W

RAA\*\*2

F

# L VAC

3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)	*	2P2D1.5	19231.000	1.057	117345.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION                      W

RAA\*\*2

F

# L VAC

4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)	*	2P2D0.5	28840.000	1.113	117345.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION                      W

RAA\*\*2

F

# L VAC

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)	*	2P2D0.5	28840.000	1.032	131870.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION                      W

RAA\*\*2

F

# L VAC

## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		35421.5	83319.000	1.796	117345.000	27.619	25.719

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P4D0.5	0.21573E+16	0.71991E+00	0.25038E-01	0.8731336E+04
(3P)	3P4J1.5	0.21615E+16	0.46074E+01	0.16055E+00	0.8714594E+04
(3P)	3P4J2.5	0.21686E+16	0.90708E+01	0.31713E+00	0.8635032E+04
(3P)	3P420.5	0.22900E+16	0.35649E+01	0.13161E+00	0.8225711E+04
(3P)	3P421.5	0.22933E+16	0.11407E+01	0.42175E-01	0.8213551E+04
(3P)	3P422.5	0.23007E+16	0.38502E+01	0.14290E+00	0.8197324E+04
(3P)	3P4S1.5	0.25301E+16	0.27410E+01	0.11180E+00	0.7444905E+04
(3P)	4P4D0.5	0.44155E+16	0.51763E-03	0.36947E-04	0.4255027E+04
(3P)	4P4J1.5	0.44192E+16	0.33128E-02	0.23632E-03	0.4292391E+04
(3P)	4P4J2.5	0.44260E+16	0.65221E-02	0.45537E-03	0.4255859E+04
(3P)	4P420.5	0.44573E+16	0.10639E-01	0.76450E-03	0.4226004E+04
(3P)	4P421.5	0.44603E+16	0.34044E-02	0.24479E-03	0.4223143E+04

## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		35422.5	83366.000	1.796	117345.000	27.619	25.767

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P4J1.5	0.21526E+16	0.28796E+00	0.99934E-02	0.8750437E+04
(3P)	3P4J2.5	0.21598E+16	0.25917E+01	0.90239E-01	0.8721434E+04
(3P)	3P4D3.5	0.21694E+16	0.11519E+02	0.40255E+00	0.8632816E+04
(3P)	3P421.5	0.22845E+16	0.25668E+01	0.94533E-01	0.8245379E+04
(3P)	3P422.5	0.22918E+16	0.59891E+01	0.22128E+00	0.8218949E+04
(3P)	3P4S1.5	0.25213E+16	0.27410E+01	0.11141E+00	0.7471047E+04
(3P)	4P4D1.5	0.44104E+16	0.20705E-03	0.14722E-04	0.4270945E+04
(3P)	4P4J2.5	0.44172E+16	0.18635E-02	0.13270E-03	0.4264391E+04
(3P)	4P4J3.5	0.44273E+16	0.82821E-02	0.59113E-03	0.4254594E+04
(3P)	4P421.5	0.44514E+16	0.75603E-02	0.54973E-03	0.4231547E+04
(3P)	4P422.5	0.44592E+16	0.17874E-01	0.12849E-02	0.4224219E+04
(3P)	4P4S1.5	0.45360E+16	0.36011E-01	0.26334E-02	0.4152648E+04

8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3S2P1.5	86223.000	1.876	117345.000	32.750	29.720

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	#	L VAC
(3P) 3P2S0.5	0.13862E+16	0.32923E+01	0.73574E-01	0.1353880E+05	
(3P) 3P2D1.5	0.19901E+16	0.16689E+01	0.53544E-01	0.9465215E+04	
(3P) 3P2D2.5	0.20044E+16	0.15020E+02	0.48536E+00	0.9397609E+04	
(3P) 3P2P0.5	0.21751E+16	0.16159E+01	0.55652E-01	0.8650253E+04	
(3P) 3P2P1.5	0.21816E+16	0.80794E+01	0.28416E+00	0.8634085E+04	
(3P) 4P2S0.5	0.38153E+16	0.42840E-01	0.26351E-02	0.4937051E+04	

9 - SEQ. NUM.

PR EE DESIG (3P)	LEVEL 3P250.5	N EFF 2.148	S. LIMIT 117345.000	RAA**2 41.699	S. RAA**2 42.286
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

(3P)	352P0.5	0.14035E+16	0.32923E+01	0.74494E-01	0.1342102E+05
(3P)	352P1.5	0.13862E+16	0.65846E+01	0.73574E-01	0.1358880E+05
(3P)	452P0.5	0.19891E+16	0.98992E+00	0.31744E-01	0.9459595E+04
(3P)	452P1.5	0.20051E+16	0.19798E+01	0.64000E-01	0.9394079E+04
(3P)	302P0.5	0.20856E+16	0.90629E+01	0.30472E+00	0.9031789E+04
(3P)	302P1.5	0.20782E+16	0.18126E+02	0.50728E+00	0.9063715E+04
(3P)	552P0.5	0.30980E+16	0.97774E-01	0.43833E-02	0.6080133E+04
(3P)	552P1.5	0.31129E+16	0.19555E+00	0.99135E-02	0.6051070E+04
(3P)	402P0.5	0.31385E+16	0.43833E+00	0.22179E-01	0.5001690E+04
(3P)	402P1.5	0.31342E+16	0.87666E+00	0.44296E-01	0.6009973E+04
(3P)	652P0.5	0.36078E+16	0.29650E-01	0.17245E-02	0.5221113E+04
(3P)	652P1.5	0.36243E+16	0.59299E-01	0.34548E-02	0.5197234E+04
(3P)	502P0.5	0.36230E+16	0.90420E-01	0.52812E-02	0.5199125E+04
(3P)	502P1.5	0.36202E+16	0.18084E+00	0.10554E-01	0.5203134E+04
(3P)	752P0.5	0.38705E+16	0.14469E-01	0.90254E-03	0.4955652E+04
(3P)	752P1.5	0.38767E+16	0.28938E-01	0.18086E-02	0.4858849E+04
(3P)	602P0.5	0.38854E+16	0.29763E-01	0.18643E-02	0.4848012E+04
(3P)	602P1.5	0.38824E+16	0.59525E-01	0.37257E-02	0.4851777E+04
(3P)	852P0.5	0.40250E+16	0.81143E-02	0.52579E-03	0.4679895E+04
(3P)	852P1.5	0.40250E+16	0.16236E-01	0.10536E-02	0.4673895E+04
(3P)	702P0.5	0.40376E+16	0.77598E-02	0.50510E-03	0.4655265E+04
(3P)	702P1.5	0.40376E+16	0.15520E-01	0.10102E-02	0.4655265E+04
(3P)	952P0.5	0.41248E+16	0.35745E-02	0.23770E-03	0.4556625E+04
(3P)	952P1.5	0.41248E+16	0.71490E-02	0.47540E-03	0.4555625E+04
(3P)	802P0.5	0.41342E+16	0.25263E-03	0.16838E-04	0.4555223E+04
(3P)	802P1.5	0.41342E+16	0.50527E-03	0.33676E-04	0.4555223E+04
(3P)	1052P0.5	0.41930E+16	0.92616E-03	0.62606E-04	0.4492359E+04
(3P)	1052P1.5	0.41930E+16	0.18523E-02	0.12521E-03	0.4492359E+04
(3P)	902P0.5	0.42019E+16	0.54165E-02	0.36691E-03	0.4482895E+04
(3P)	902P1.5	0.42019E+16	0.10833E-01	0.73333E-03	0.4482895E+04
(3P)	1152P0.5	0.42429E+16	0.29281E-03	0.20029E-05	0.4439508E+04
(3P)	1152P1.5	0.42429E+16	0.58562E-04	0.40037E-05	0.4439508E+04
(3P)	1002P0.5	0.42520E+16	0.99576E-02	0.68257E-03	0.4430070E+04
(3P)	1002P1.5	0.42520E+16	0.19915E-01	0.13651E-02	0.4430070E+04
(3P)	1252P0.5	0.42802E+16	0.23086E-03	0.15930E-04	0.4400824E+04
(3P)	1252P1.5	0.42802E+16	0.46173E-03	0.31851E-04	0.4400824E+04
(3P)	1102P0.5	0.42889E+16	0.13652E-01	0.94396E-03	0.4391934E+04
(3P)	1102P1.5	0.42889E+16	0.27305E-01	0.18879E-02	0.4391934E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P430.5	94772.000	2.208	117345.000	47.148	46.778

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	35420.5	0.21638E+16	0.71990E+01	0.25112E+00	0.8705492E+04
(3P)	35421.5	0.21573E+16	0.14390E+01	0.25038E-01	0.87313336E+04
(3P)	45420.5	0.16663E+16	0.45412E+01	0.12199E+00	0.1130454E+05
(3P)	45421.5	0.16757E+16	0.90825E+00	0.24536E-01	0.1124100E+05
(3P)	304F1.5	0.18635E+16	0.26111E+02	0.78442E+00	0.1010816E+05
(3P)	30420.5	0.19010E+16	0.25135E+00	0.77029E-02	0.9908836E+04
(3P)	30421.5	0.19059E+16	0.50270E-01	0.15446E-02	0.9883375E+04
(3P)	30430.5	0.19241E+16	0.22277E+01	0.69103E-01	0.9789523E+04
(3P)	30431.5	0.19262E+16	0.22277E+01	0.69179E-01	0.9778992E+04
(3P)	55420.5	0.28332E+16	0.31556E+00	0.14413E-01	0.6649492E+04
(3P)	55421.5	0.28415E+16	0.63112E-01	0.29911E-02	0.6629102E+04
(3P)	404F1.5	0.29053E+16	0.86494E+00	0.40512E-01	0.6483402E+04
(3P)	40430.5	0.29101E+16	0.84813E-01	0.39739E-02	0.6472910E+04
(3P)	40431.5	0.29202E+16	0.84815E-01	0.39929E-02	0.6450363E+04
(3P)	40440.5	0.29296E+16	0.10782E-01	0.50923E-03	0.6429625E+04
(3P)	40441.5	0.29345E+16	0.21564E-02	0.10202E-03	0.6418895E+04
(3P)	65420.5	0.33516E+16	0.92153E-01	0.49793E-02	0.5620187E+04
(3P)	65421.5	0.33601E+16	0.18431E-01	0.99837E-03	0.5606003E+04
(3P)	504F1.5	0.33866E+16	0.13349E+00	0.72882E-02	0.5552043E+04
(3P)	50430.5	0.34006E+16	0.16080E-01	0.88155E-03	0.5539242E+04
(3P)	50431.5	0.34006E+16	0.16081E-01	0.88157E-03	0.5539242E+04
(3P)	50440.5	0.34062E+16	0.22126E-02	0.12151E-03	0.5530055E+04
(3P)	50441.5	0.34098E+16	0.44257E-03	0.24328E-04	0.5524250E+04
(3P)	75420.5	0.36247E+16	0.40415E-01	0.23617E-02	0.5195691E+04
(3P)	75421.5	0.36354E+16	0.80831E-02	0.47374E-03	0.5181344E+04
(3P)	604F1.5	0.36520E+16	0.15130E-01	0.39080E-03	0.5157828E+04
(3P)	60430.5	0.36562E+16	0.35543E-02	0.22129E-03	0.5151930E+04
(3P)	60431.5	0.36562E+16	0.37544E-02	0.22130E-03	0.5151980E+04
(3P)	60440.5	0.36707E+16	0.67898E-03	0.52015E-04	0.5131625E+04
(3P)	60441.5	0.36707E+16	0.17580E-03	0.10403E-04	0.5131625E+04
(3P)	85420.5	0.37743E+16	0.15709E-01	0.95585E-03	0.4990768E+04
(3P)	85421.5	0.37895E+16	0.31416E-02	0.19194E-03	0.4970672E+04
(3P)	70430.5	0.38080E+16	0.70347E-05	0.43186E-06	0.4945574E+04
(3P)	70431.5	0.38080E+16	0.70349E-05	0.43187E-06	0.4945574E+04
(3P)	70440.5	0.38297E+16	0.55828E-03	0.34468E-04	0.4918594E+04
(3P)	70441.5	0.38297E+16	0.11166E-03	0.68936E-05	0.4918594E+04
(3P)	95420.5	0.39012E+16	0.79985E-02	0.50306E-03	0.4828352E+04
(3P)	95421.5	0.39012E+16	0.15997E-02	0.10061E-03	0.4828352E+04
(3P)	80430.5	0.39090E+16	0.82034E-03	0.51666E-04	0.4818312E+04
(3P)	80431.5	0.39090E+16	0.82036E-03	0.51598E-04	0.4818312E+04
(3P)	80440.5	0.39267E+16	0.24318E-03	0.15394E-04	0.4797032E+04
(3P)	80441.5	0.39267E+16	0.48636E-04	0.30789E-05	0.4797082E+04
(3P)	105420.5	0.39753E+16	0.20373E-02	0.13043E-03	0.4743156E+04
(3P)	105421.5	0.39713E+16	0.40745E-03	0.26086E-04	0.4743156E+04
(3P)	90430.5	0.39773E+16	0.24273E-02	0.15564E-03	0.4735969E+04
(3P)	90431.5	0.39773E+16	0.24274E-02	0.15564E-03	0.4735969E+04
(3P)	90440.5	0.39967E+16	0.20969E-03	0.13511E-04	0.4712977E+04
(3P)	90441.5	0.39967E+16	0.41939E-04	0.27022E-05	0.4712977E+04

ORIGINAL PAGE IS  
OF POOR QUALITY

(3P)	11S420.5	0.40220E+16	0.86975E-04	0.56395E-05	0.4683398E+04
(3P)	11S421.5	0.40220E+16	0.17395E-04	0.11279E-05	0.4683398E+04
(3P)	10J420.5	0.40295E+16	0.24624E-02	0.15996E-03	0.4674645E+04
(3P)	10J421.5	0.40295E+16	0.24625E-02	0.15997E-03	0.4674645E+04
(3P)	10D420.5	0.40474E+16	0.22761E-03	0.14852E-04	0.4653977E+04
(3P)	10D421.5	0.40474E+16	0.45523E-04	0.29704E-05	0.4653977E+04
(3P)	12S420.5	0.40574E+16	0.11342E-02	0.74138E-04	0.4642523E+04
(3P)	12S421.5	0.40574E+16	0.22684E-03	0.14838E-04	0.4642523E+04

# INTERACTIONS -- QUADRUPOLE -

0.22687E+16 0.89880E+03

## 11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(3P)		3P4D2.5	94832.000	2.208	117345.000	47.148	46.778

# INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(3P)	3S421.5	0.21686E+16	0.60472E+01	0.6585832E+04
(3P)	3S422.5	0.21598E+16	0.25917E+01	0.8721434E+04
(3P)	4S421.5	0.16644E+16	0.38146E+01	0.1131734E+05
(3P)	4S422.5	0.16772E+16	0.16348E+01	0.1123051E+05
(3P)	3D421.5	0.18522E+16	0.24867E+00	0.1016984E+05
(3P)	3D422.5	0.18556E+16	0.45471E+01	0.1015022E+05
(3P)	3D423.5	0.18622E+16	0.21315E+02	0.1011531E+05
(3P)	3D421.5	0.18946E+16	0.21113E+00	0.9942332E+04
(3P)	3D422.5	0.19072E+16	0.90486E-01	0.9876543E+04
(3P)	3D421.5	0.19149E+16	0.10396E+01	0.9836707E+04
(3P)	3D422.5	0.19174E+16	0.25071E+01	0.9824145E+04
(3P)	3D423.5	0.19191E+16	0.84866E+00	0.9815469E+04
(3P)	5S421.5	0.28302E+16	0.26507E+00	0.6655570E+04
(3P)	5S422.5	0.28434E+16	0.11360E+00	0.6624707E+04
(3P)	4D421.5	0.28740E+16	0.82375E-02	0.6508719E+04
(3P)	4D422.5	0.28974E+16	0.15063E+00	0.6501102E+04
(3P)	4D423.5	0.29038E+16	0.70606E+00	0.6456760E+04
(3P)	4D421.5	0.29089E+16	0.39580E-01	0.6475422E+04
(3P)	4D422.5	0.29114E+16	0.97736E-01	0.6469977E+04
(3P)	4D423.5	0.29210E+16	0.32310E-01	0.6448699E+04
(3P)	4D421.5	0.29232E+16	0.90568E-02	0.6443711E+04
(3P)	4D422.5	0.29330E+16	0.38615E-02	0.6422191E+04
(3P)	6S421.5	0.33488E+16	0.77409E-01	0.5624930E+04
(3P)	6S422.5	0.33623E+16	0.33175E-01	0.5602239E+04

ORIGINAL PAGE IS  
OF POOR QUALITY



(3P)	504F1.5	0.33753E+16	0.12713E-01	0.69180E-04	0.5580563E+04
(3P)	504F2.5	0.33776E+16	0.23247E-01	0.12658E-02	0.5576934E+04
(3P)	504F3.5	0.33844E+16	0.10897E+00	0.59455E-02	0.5565753E+04
(3P)	504D1.5	0.33893E+16	0.75043E-02	0.41003E-03	0.5557715E+04
(3P)	504D2.5	0.33893E+16	0.18531E-01	0.10125E-02	0.5557715E+04
(3P)	504D3.5	0.34019E+16	0.61260E-02	0.33597E-03	0.5557093E+04
(3P)	504P1.5	0.33985E+16	0.18586E-02	0.10164E-03	0.5542621E+04
(3P)	504P2.5	0.34052E+16	0.79663E-03	0.43738E-04	0.5550973E+04
(3P)	754P1.5	0.36241E+16	0.33949E-01	0.19535E-02	0.5197504E+04
(3P)	754P2.5	0.36381E+16	0.14550E-01	0.85335E-03	0.5177590E+04
(3P)	604F1.5	0.36407E+16	0.14410E-03	0.84576E-05	0.5173840E+04
(3P)	604F2.5	0.36407E+16	0.26349E-02	0.15455E-03	0.5173840E+04
(3P)	604F3.5	0.36407E+16	0.12351E-01	0.72493E-03	0.5173840E+04
(3P)	604D1.5	0.36449E+16	0.17521E-02	0.10295E-03	0.5167957E+04
(3P)	604D2.5	0.36449E+16	0.43264E-02	0.25422E-03	0.5167957E+04
(3P)	604D3.5	0.36573E+16	0.14303E-02	0.84329E-04	0.5150391E+04
(3P)	604P1.5	0.36594E+16	0.73834E-03	0.43559E-04	0.5147473E+04
(3P)	604P2.5	0.36622E+16	0.31643E-03	0.18642E-04	0.5143500E+04
(3P)	854P1.5	0.37782E+16	0.13196E-01	0.80376E-03	0.4985539E+04
(3P)	854P2.5	0.37880E+16	0.56553E-02	0.34536E-03	0.4972649E+04
(3P)	704D1.5	0.37967E+16	0.32829E-05	0.20094E-06	0.4961301E+04
(3P)	704D2.5	0.37967E+16	0.81066E-05	0.49619E-06	0.4961301E+04
(3P)	704D3.5	0.37967E+16	0.26799E-05	0.16403E-06	0.4961301E+04
(3P)	704P1.5	0.38183E+16	0.46896E-03	0.28858E-04	0.4933152E+04
(3P)	704P2.5	0.38183E+16	0.20094E-03	0.12372E-04	0.4933152E+04
(3P)	954P1.5	0.38899E+16	0.67188E-02	0.42134E-03	0.4642379E+04
(3P)	954P2.5	0.38899E+16	0.28795E-02	0.18058E-03	0.4842379E+04
(3P)	804D1.5	0.38977E+16	0.38283E-03	0.24055E-04	0.4832785E+04
(3P)	804D2.5	0.38977E+16	0.94534E-03	0.59401E-04	0.4832785E+04
(3P)	804D3.5	0.38977E+16	0.31252E-03	0.19637E-04	0.4832785E+04
(3P)	804P1.5	0.39154E+16	0.20427E-03	0.12894E-04	0.4810930E+04
(3P)	804P2.5	0.39154E+16	0.87546E-04	0.55250E-05	0.4810930E+04
(3P)	1054P1.5	0.39600E+16	0.17113E-02	0.10925E-03	0.4756691E+04
(3P)	1054P2.5	0.39600E+16	0.73341E-03	0.45822E-04	0.4756691E+04
(3P)	904D1.5	0.39660E+16	0.11328E-02	0.72426E-04	0.4749465E+04
(3P)	904D2.5	0.39660E+16	0.27971E-02	0.17884E-03	0.4749465E+04
(3P)	904D3.5	0.39660E+16	0.92470E-03	0.59124E-04	0.4749465E+04
(3P)	904P1.5	0.39854E+16	0.17614E-03	0.11317E-04	0.4726344E+04
(3P)	904P2.5	0.39854E+16	0.75490E-04	0.43503E-05	0.4726344E+04
(3P)	1154P1.5	0.40107E+16	0.73059E-04	0.47239E-05	0.4696598E+04
(3P)	1154P2.5	0.40107E+16	0.31311E-04	0.20245E-05	0.4696598E+04
(3P)	1004D1.5	0.40182E+16	0.11492E-02	0.74441E-04	0.4687793E+04
(3P)	1004D2.5	0.40182E+16	0.28376E-02	0.18382E-03	0.4687793E+04
(3P)	1004D3.5	0.40182E+16	0.93809E-03	0.60769E-04	0.4687793E+04
(3P)	1004P1.5	0.40361E+16	0.19120E-03	0.12441E-04	0.4657008E+04
(3P)	1004P2.5	0.40361E+16	0.81941E-04	0.53317E-05	0.4657008E+04
(3P)	1254P1.5	0.40461E+16	0.95271E-03	0.62144E-04	0.4655492E+04
(3P)	1254P2.5	0.40461E+16	0.40831E-03	0.26633E-04	0.4655492E+04

INTERACTIONS -- QUADRUPOLE --

0.22574E+16      0.64030E+03

## 12 - SEQ. NUM.

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP) 3P4D3.5	94863.000	2.208	117345.000	47.148	46.778

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(3P) 3S4P2.5	0.21694E+16	0.86389E+01	0.40235E+00	0.8662816E+04	
(3P) 4S4P2.5	0.16570E+16	0.54495E+01	0.14650E+00	0.1129561E+05	
(3P) 3D4F2.5	0.18462E+16	0.13322E+00	0.39649E-02	0.1020304E+05	
(3P) 3D4F3.5	0.18526E+16	0.25643E+01	0.79574E-01	0.1015777E+05	
(3P) 3D4F4.5	0.18518E+16	0.23313E+02	0.69974E+00	0.1011736E+05	
(3P) 3D4P2.5	0.18976E+16	0.30162E+00	0.92271E-02	0.9926543E+04	
(3P) 3D4D2.5	0.19078E+16	0.63650E+00	0.19576E-01	0.9873617E+04	
(3P) 3D4D3.5	0.19095E+16	0.38189E+01	0.11755E+00	0.9864848E+04	
(3P) 5S4P2.5	0.28338E+16	0.37857E+00	0.17299E-01	0.8647163E+04	
(3P) 4D4F2.5	0.28878E+16	0.44129E-02	0.20545E-03	0.6522730E+04	
(3P) 4D4F3.5	0.28942E+16	0.88259E-01	0.41131E-02	0.6503297E+04	
(3P) 4D4F4.5	0.29048E+16	0.77226E+00	0.35155E-01	0.6484660E+04	
(3P) 4D4D2.5	0.29018E+16	0.24233E-01	0.11336E-02	0.6491393E+04	
(3P) 4D4D3.5	0.29114E+16	0.14539E+00	0.68242E-02	0.6469977E+04	
(3P) 4D4P2.5	0.29234E+16	0.12938E-01	0.60978E-03	0.6443297E+04	
(3P) 6S4P2.5	0.33527E+16	0.11059E+00	0.59772E-02	0.5618293E+04	
(3P) 5D4F2.5	0.33680E+16	0.68108E-03	0.35930E-04	0.5592840E+04	
(3P) 5D4F3.5	0.33747E+16	0.13621E-01	0.74109E-03	0.5531602E+04	
(3P) 5D4F4.5	0.33866E+16	0.11919E+00	0.55073E-02	0.5552043E+04	
(3P) 5D4D2.5	0.33776E+16	0.45945E-02	0.25033E-03	0.5573512E+04	
(3P) 5D4D3.5	0.33923E+16	0.27566E-01	0.15076E-02	0.5552777E+04	
(3P) 5D4P2.5	0.33960E+16	0.26554E-02	0.14538E-03	0.5545617E+04	
(3P) 7S4P2.5	0.36285E+16	0.48699E-01	0.28370E-02	0.5191297E+04	
(3P) 6D4F2.5	0.36311E+16	0.77195E-04	0.45159E-05	0.5187527E+04	
(3P) 6D4F3.5	0.36311E+16	0.15439E-02	0.90373E-04	0.5157527E+04	
(3P) 6D4F4.5	0.36311E+16	0.13509E-01	0.79031E-03	0.5187527E+04	
(3P) 6D4D2.5	0.36353E+16	0.10727E-02	0.62856E-04	0.5181613E+04	
(3P) 6D4D3.5	0.36477E+16	0.64361E-02	0.37448E-03	0.5153953E+04	
(3P) 6D4P2.5	0.36526E+16	0.10548E-02	0.62111E-04	0.5157031E+04	
(3P) 8S4P2.5	0.37744E+16	0.18851E-01	0.11433E-02	0.4985293E+04	
(3P) 7D4D2.5	0.37871E+16	0.20100E-05	0.12271E-06	0.4973887E+04	
(3P) 7D4D3.5	0.37871E+16	0.12060E-04	0.73627E-06	0.4973887E+04	
(3P) 7D4P2.5	0.38087E+16	0.66995E-03	0.41136E-04	0.4945593E+04	
(3P) 9S4P2.5	0.38403E+16	0.95983E-02	0.60044E-03	0.4554307E+04	
(3P) 8D4D2.5	0.38880E+16	0.23439E-03	0.14692E-04	0.4844723E+04	
(3P) 8D4D3.5	0.38880E+16	0.14063E-02	0.83145E-04	0.4844723E+04	
(3P) 8D4P2.5	0.39058E+16	0.29182E-03	0.18375E-04	0.4822762E+04	
(3P) 10S4P2.5	0.39504E+16	0.24447E-02	0.15559E-03	0.4763262E+04	
(3P) 9D4D2.5	0.39564E+16	0.69353E-03	0.44235E-04	0.4760996E+04	
(3P) 9D4D3.5	0.39564E+16	0.41611E-02	0.26541E-03	0.4760996E+04	
(3P) 9D4P2.5	0.39758E+16	0.25163E-03	0.16129E-04	0.4737762E+04	
(3P) 11S4P2.5	0.40011E+16	0.10437E-03	0.57322E-05	0.4707875E+04	
(3P) 10D4D2.5	0.40086E+16	0.70357E-03	0.45453E-04	0.4699023E+04	
(3P) 10D4D3.5	0.40086E+16	0.42213E-02	0.27230E-03	0.4699023E+04	
(3P) 10D4P2.5	0.40265E+16	0.27314E-03	0.17730E-04	0.4678141E+04	
(3P) 12S4P2.5	0.40365E+16	0.13610E-02	0.89567E-04	0.4665570E+04	

## INTERACTIONS -- QUADRUPOLE -

0.22478E+16	0.63008E+03
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## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P42.5	95533.000	2.241	117345.000	50.467	49.429

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	# L VAC	
(3P)	3S421.5	0.23007E+16	0.25668E+01	0.14230E+00	0.8137324E+04
(3P)	3S422.5	0.22918E+16	0.59891E+01	0.22128E+00	0.8218949E+04
(3P)	4S421.5	0.15324E+16	0.19744E+01	0.48775E-01	0.1229256E+05
(3P)	4S422.5	0.15452E+16	0.46069E+01	0.11476E+00	0.1219065E+05
(3P)	3D421.5	0.17625E+16	0.24572E+01	0.69321E-01	0.1066715E+05
(3P)	3D422.5	0.17752E+16	0.57334E+01	0.15403E+00	0.1061120E+05
(3P)	3D423.5	0.17829E+16	0.48490E+00	0.13937E-01	0.1055524E+05
(3P)	3D422.5	0.17853E+16	0.43641E+01	0.12551E+00	0.1055075E+05
(3P)	3D423.5	0.17870E+16	0.19396E+02	0.55878E+00	0.1054074E+05
(3P)	5S421.5	0.26981E+16	0.12113E+00	0.52638E-02	0.6981239E+04
(3P)	5S422.5	0.27113E+16	0.28263E+00	0.12354E-01	0.6947336E+04
(3P)	4D421.5	0.27769E+16	0.13759E-01	0.51593E-03	0.6783340E+04
(3P)	4D422.5	0.27793E+16	0.12363E+00	0.55433E-02	0.6777363E+04
(3P)	4D423.5	0.27889E+16	0.55034E+00	0.24744E-01	0.6754016E+04
(3P)	4D421.5	0.27912E+16	0.81436E-01	0.35645E-02	0.6748547E+04
(3P)	4D422.5	0.28010E+16	0.19001E+00	0.85803E-02	0.6724949E+04
(3P)	6S421.5	0.32167E+16	0.34479E-01	0.17930E-02	0.5855828E+04
(3P)	6S422.5	0.32303E+16	0.80449E-01	0.41935E-02	0.5831242E+04
(3P)	5D421.5	0.32572E+16	0.22296E-02	0.11708E-03	0.5783020E+04
(3P)	5D422.5	0.32572E+16	0.20066E-01	0.10537E-02	0.5783020E+04
(3P)	5D423.5	0.32698E+16	0.89183E-01	0.47012E-02	0.5760699E+04
(3P)	5D421.5	0.32664E+16	0.14589E-01	0.77352E-03	0.5753660E+04
(3P)	5D422.5	0.32736E+16	0.34274E-01	0.18038E-02	0.5754070E+04
(3P)	7S421.5	0.34921E+16	0.14869E-01	0.93712E-03	0.5394031E+04
(3P)	7S422.5	0.35000E+16	0.34695E-01	0.19610E-02	0.5372586E+04
(3P)	6D421.5	0.35128E+16	0.40350E-03	0.22851E-04	0.5362215E+04
(3P)	6D422.5	0.35128E+16	0.36315E-02	0.20556E-03	0.5352215E+04
(3P)	6D423.5	0.35253E+16	0.16140E-01	0.91728E-03	0.5343305E+04
(3P)	6D421.5	0.35273E+16	0.55483E-02	0.31551E-03	0.5340163E+04
(3P)	6D422.5	0.35302E+16	0.12946E-01	0.73577E-03	0.5335895E+04
(3P)	8S421.5	0.36462E+16	0.51404E-02	0.30216E-03	0.5166086E+04
(3P)	8S422.5	0.36560E+16	0.11994E-01	0.70693E-03	0.5152246E+04
(3P)	7D421.5	0.36646E+16	0.24625E-04	0.14667E-05	0.5140065E+04
(3P)	7D422.5	0.36646E+16	0.22343E-03	0.13200E-04	0.5140065E+04
(3P)	7D423.5	0.36646E+16	0.99302E-03	0.53667E-04	0.5140065E+04
(3P)	7D421.5	0.36863E+16	0.36401E-02	0.21632E-03	0.5109859E+04
(3P)	7D422.5	0.36863E+16	0.84934E-02	0.50475E-03	0.5109859E+04
(3P)	9S421.5	0.37579E+16	0.24974E-02	0.15130E-03	0.5012531E+04
(3P)	9S422.5	0.37579E+16	0.58273E-02	0.35303E-03	0.5012531E+04
(3P)	8D421.5	0.37656E+16	0.20028E-03	0.12158E-04	0.5002250E+04
(3P)	8D422.5	0.37656E+16	0.18025E-02	0.10942E-03	0.5002250E+04
(3P)	8D423.5	0.37656E+16	0.80111E-02	0.43633E-03	0.5002250E+04
(3P)	8D421.5	0.37833E+16	0.14275E-02	0.37055E-04	0.4978840E+04
(3P)	8D422.5	0.37833E+16	0.33307E-02	0.20315E-03	0.4978840E+04
(3P)	10S421.5	0.38280E+16	0.47170E-03	0.29110E-04	0.4920773E+04
(3P)	10S422.5	0.38280E+16	0.11006E-02	0.67922E-04	0.4920773E+04
(3P)	9D421.5	0.38340E+16	0.63797E-03	0.39432E-04	0.4913039E+04
(3P)	9D422.5	0.38340E+16	0.57417E-02	0.35489E-03	0.4913039E+04

(3P)	90433.5	0.38340E+16	0.25519E-01	0.15773E-02	0.4913039E+04
(3P)	90431.5	0.38534E+16	0.13247E-02	0.82291E-04	0.4885301E+04
(3P)	90432.5	0.38534E+16	0.30909E-02	0.19201E-03	0.4889301E+04
(3P)	115431.5	0.38786E+16	0.24493E-05	0.15315E-07	0.4855488E+04
(3P)	115432.5	0.38786E+16	0.57149E-05	0.35735E-07	0.4855488E+04
(3P)	100431.5	0.38862E+16	0.60742E-03	0.38055E-04	0.4847074E+04
(3P)	100432.5	0.38862E+16	0.54668E-02	0.34250E-03	0.4847074E+04
(3P)	100433.5	0.38862E+16	0.24297E-01	0.15222E-02	0.4847074E+04
(3P)	100431.5	0.39041E+16	0.15989E-02	0.10054E-03	0.4824855E+04
(3P)	100432.5	0.39041E+16	0.37308E-02	0.23481E-03	0.4824855E+04
(3P)	125431.5	0.39140E+16	0.69533E-03	0.43975E-04	0.4812551E+04
(3P)	125432.5	0.39140E+16	0.16224E-02	0.10237E-03	0.4812551E+04

INTERACTIONS -- QUADRUPOLE -

0.21673E+16	0.14318E+03
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14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3451.5	96751.000	2.308	117345.000	57.504	56.881

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	35430.5	0.25365E+16	0.13705E+01	0.11209E+00	0.7425103E+04
(3P)	35431.5	0.25301E+16	0.27410E+01	0.11130E+00	0.7444906E+04
(3P)	35432.5	0.25213E+16	0.41115E+01	0.11141E+00	0.7471047E+04
(3P)	45430.5	0.12935E+16	0.15394E+01	0.32100E-01	0.1455240E+05
(3P)	45431.5	0.13029E+16	0.30767E+01	0.64658E-01	0.1445713E+05
(3P)	45432.5	0.13157E+16	0.46181E+01	0.97957E-01	0.1431639E+05
(3P)	30430.5	0.16232E+16	0.63403E+01	0.15520E+00	0.1232583E+05
(3P)	30431.5	0.15331E+16	0.12661E+02	0.31341E+00	0.1228652E+05
(3P)	30432.5	0.15457E+16	0.19021E+02	0.47399E+00	0.1218620E+05
(3P)	55430.5	0.24604E+16	0.70618E-01	0.28011E-02	0.7655793E+04
(3P)	55431.5	0.24687E+16	0.14124E+00	0.56210E-02	0.7630090E+04
(3P)	55432.5	0.24819E+16	0.21185E+00	0.84767E-02	0.7589555E+04
(3P)	40430.5	0.25509E+16	0.10625E+00	0.43795E-02	0.7367023E+04
(3P)	40431.5	0.25618E+16	0.21249E+00	0.87757E-02	0.7352937E+04
(3P)	40432.5	0.25716E+16	0.31874E+00	0.13214E-01	0.7324934E+04
(3P)	65430.5	0.29786E+16	0.19027E-01	0.91371E-03	0.6323503E+04
(3P)	65431.5	0.29873E+16	0.38053E-01	0.18325E-02	0.6305566E+04
(3P)	65432.5	0.30008E+16	0.57080E-01	0.27614E-02	0.6277066E+04

(3P)	504>0.5	0.30334E+16	0.12271E-01	0.60007E-03	0.6209637E+04
(3P)	504>1.5	0.30370E+16	0.24541E-01	0.12016E-02	0.5202316E+04
(3P)	504>2.5	0.30442E+16	0.36812E-01	0.18060E-02	0.6187734E+04
(3P)	754>0.5	0.32519E+16	0.79140E-02	0.41490E-03	0.5792393E+04
(3P)	754>1.5	0.32627E+16	0.15828E-01	0.83253E-03	0.5773336E+04
(3P)	754>2.5	0.32766E+16	0.23742E-01	0.12541E-02	0.5748777E+04
(3P)	604>0.5	0.32979E+16	0.37810E-02	0.20102E-03	0.5711672E+04
(3P)	604>1.5	0.32979E+16	0.75619E-02	0.40204E-03	0.5711672E+04
(3P)	604>2.5	0.33007E+16	0.11343E-01	0.60359E-03	0.5705785E+04
(3P)	854>0.5	0.34015E+16	0.21398E-02	0.11734E-03	0.5537711E+04
(3P)	854>1.5	0.34168E+16	0.42797E-02	0.23574E-03	0.5512980E+04
(3P)	854>2.5	0.34266E+16	0.64196E-02	0.35462E-03	0.5497223E+04
(3P)	704>0.5	0.34569E+16	0.28888E-02	0.15099E-03	0.5448996E+04
(3P)	704>1.5	0.34569E+16	0.57777E-02	0.32179E-03	0.5448996E+04
(3P)	704>2.5	0.34569E+16	0.85666E-02	0.48299E-03	0.5448996E+04
(3P)	954>0.5	0.35285E+16	0.86616E-03	0.49270E-04	0.5338457E+04
(3P)	954>1.5	0.35285E+16	0.17323E-02	0.98540E-04	0.5338457E+04
(3P)	954>2.5	0.35285E+16	0.25985E-02	0.14781E-03	0.5338457E+04
(3P)	804>0.5	0.35539E+16	0.68370E-03	0.39172E-04	0.5300258E+04
(3P)	804>1.5	0.35539E+16	0.13674E-02	0.78344E-04	0.5300258E+04
(3P)	804>2.5	0.35539E+16	0.20511E-02	0.11752E-03	0.5300258E+04
(3P)	1054>0.5	0.35985E+16	0.42992E-04	0.24941E-05	0.5234504E+04
(3P)	1054>1.5	0.35985E+16	0.85983E-04	0.49882E-05	0.5234504E+04
(3P)	1054>2.5	0.35985E+16	0.12898E-03	0.74823E-05	0.5234504E+04
(3P)	904>0.5	0.36240E+16	0.92408E-03	0.53938E-04	0.5197773E+04
(3P)	904>1.5	0.36240E+16	0.18482E-02	0.10778E-03	0.5197773E+04
(3P)	904>2.5	0.36240E+16	0.27723E-02	0.16196E-03	0.5197773E+04
(3P)	1154>0.5	0.36492E+16	0.10914E-03	0.64210E-05	0.5161820E+04
(3P)	1154>1.5	0.36492E+16	0.21829E-03	0.12842E-04	0.5161820E+04
(3P)	1154>2.5	0.36492E+16	0.32743E-03	0.19263E-04	0.5161820E+04
(3P)	1004>0.5	0.36746E+16	0.16999E-02	0.10070E-03	0.5126102E+04
(3P)	1004>1.5	0.36746E+16	0.33998E-02	0.20141E-03	0.5126102E+04
(3P)	1004>2.5	0.36746E+16	0.50998E-02	0.30211E-03	0.5126102E+04
(3P)	1254>0.5	0.36846E+16	0.83942E-03	0.49853E-04	0.5112211E+04
(3P)	1254>1.5	0.36846E+16	0.16788E-02	0.99725E-04	0.5112211E+04
(3P)	1254>2.5	0.36846E+16	0.25183E-02	0.14959E-03	0.5112211E+04

15 - SEQ. NUM.

PR (3P)	EE 3P202.5	DESIG 96864.000	LEVEL 2.312	N EFF 117345.000	S. LIMIT 58.020	RAA**2 58.039	S. RAA**2 58.039
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INTERACTIONS -- DIPOLE -  
DESIGNATION

RAA\*\*2

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M L VAC

(JP)	352P1.5	0.20044E+16	0.10014E+02	0.48536E+00	0.9397609E+04
(3P)	452P1.5	0.13869E+16	0.80579E+01	0.18017E+00	0.1358142E+05
(3P)	3D2P1.5	0.14600E+16	0.39377E+00	0.92604E-02	0.1290156E+05
(3P)	302F2.5	0.14967E+16	0.15457E+01	0.37321E-01	0.1258495E+05
(3P)	302F3.5	0.15103E+16	0.30933E+02	0.75318E+00	0.1247194E+05
(3P)	3D2D1.5	0.15551E+16	0.37499E+00	0.94015E-02	0.1211240E+05
(3P)	302D2.5	0.15597E+16	0.52498E+01	0.13200E+00	0.1207729E+05
(3P)	552P1.5	0.24947E+16	0.46277E+00	0.18612E-01	0.7550586E+04
(3P)	4D2P1.5	0.25160E+16	0.31947E-02	0.12958E-03	0.7486711E+04
(3P)	4D2F2.5	0.25329E+16	0.21962E-01	0.89681E-03	0.7435502E+04
(3P)	4D2F3.5	0.25446E+16	0.43924E+00	0.18019E-01	0.7402469E+04
(3P)	4D2D1.5	0.25588E+16	0.81126E-02	0.33465E-03	0.7361602E+04
(3P)	4D2D2.5	0.25629E+16	0.11357E+00	0.45926E-02	0.7349695E+04
(3P)	652P1.5	0.30061E+16	0.13791E+00	0.66837E-02	0.6266055E+04
(3P)	5D2P1.5	0.30020E+16	0.12106E-03	0.58589E-05	0.6274703E+04
(3P)	5D2F2.5	0.30056E+16	0.16995E-02	0.82347E-04	0.5267234E+04
(3P)	5D2F3.5	0.30187E+16	0.33990E-01	0.16542E-02	0.6239859E+04
(3P)	5D2D1.5	0.30261E+16	0.11747E-02	0.57307E-04	0.6224711E+04
(3P)	5D2D2.5	0.30295E+16	0.16445E-01	0.80313E-03	0.6217742E+04
(3P)	752P1.5	0.32585E+16	0.55614E-01	0.29215E-02	0.5780680E+04
(3P)	6D2F2.5	0.32647E+16	0.31775E-03	0.16724E-04	0.5769672E+04
(3P)	6D2F3.5	0.32796E+16	0.63550E-02	0.33600E-03	0.5743492E+04
(3P)	6D2D1.5	0.32715E+16	0.20118E-03	0.10611E-04	0.5757715E+04
(3P)	6D2D2.5	0.32829E+16	0.28165E-02	0.14904E-03	0.5738551E+04
(3P)	8F2P1.5	0.34068E+16	0.20231E-01	0.11111E-02	0.5529137E+04
(3P)	7D2F2.5	0.34169E+16	0.54245E-03	0.29882E-04	0.5512676E+04
(3P)	7D2F3.5	0.34169E+16	0.10849E-01	0.59763E-03	0.5512676E+04
(3P)	7D2P1.5	0.34194E+16	0.71982E-04	0.39581E-05	0.5508730E+04
(3P)	7D2D1.5	0.34269E+16	0.58242E-04	0.32177E-05	0.5495617E+04
(3P)	7D2D2.5	0.34350E+16	0.81537E-03	0.45153E-04	0.5483656E+04
(3P)	952P1.5	0.35066E+16	0.45297E-02	0.26595E-03	0.5371723E+04
(3P)	8D2P1.5	0.35160E+16	0.35100E-03	0.19896E-04	0.5357332E+04
(3P)	8D2F2.5	0.35170E+16	0.12150E-02	0.68891E-04	0.5355898E+04
(3P)	8D2F3.5	0.35170E+16	0.24301E-01	0.13773E-02	0.5355898E+04
(3P)	8D2D1.5	0.35286E+16	0.17173E-04	0.97689E-06	0.5338172E+04
(3P)	8D2D2.5	0.35334E+16	0.24041E-03	0.13694E-04	0.5331059E+04
(3P)	1052P1.5	0.35748E+16	0.67757E-05	0.39049E-06	0.5269258E+04
(3P)	9D2P1.5	0.35830E+16	0.57214E-03	0.33055E-04	0.5256238E+04
(3P)	9D2F2.5	0.35861E+16	0.16986E-02	0.98200E-04	0.5252652E+04
(3P)	9D2F3.5	0.35861E+16	0.33972E-01	0.19640E-02	0.5252652E+04
(3P)	9D2D1.5	0.35995E+16	0.24687E-04	0.14326E-05	0.5233133E+04
(3P)	9D2D2.5	0.36024E+16	0.34552E-03	0.23074E-04	0.5228211E+04
(3P)	1152P1.5	0.36247E+16	0.25758E-02	0.15052E-03	0.5196691E+04
(3P)	10D2P1.5	0.36338E+16	0.67588E-03	0.39594E-04	0.5183762E+04
(3P)	10D2F2.5	0.36345E+16	0.25340E-02	0.14347E-03	0.5182687E+04
(3P)	10D2F3.5	0.36345E+16	0.50579E-01	0.29045E-02	0.5182687E+04
(3P)	10D2D1.5	0.36478E+16	0.75762E-05	0.44578E-06	0.5161023E+04
(3P)	10D2D2.5	0.36498E+16	0.10606E-03	0.62407E-05	0.5161023E+04
(3P)	1252P1.5	0.36620E+16	0.64467E-02	0.39059E-03	0.5143766E+04
(3P)	11D2P1.5	0.36707E+16	0.62685E-03	0.37095E-04	0.5131825E+04

## 16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)		JS2D1.5	99658.000	1.845	131370.000	30.596	14.846

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(1D)	3P2D1.5	0.20462E+16	0.85394E+01	0.28170E+00	0.9205559E+04
(1D)	3P2D2.5	0.20507E+16	0.94884E+00	0.41369E-01	0.9185265E+04
(1D)	3P2D0.5	0.23802E+16	0.44652E+01	0.17134E+00	0.7913895E+04
(1D)	3P2D1.5	0.23851E+16	0.69304E+00	0.34338E-01	0.7897645E+04

## 17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S4P2.5	103736.000	2.834	117345.000	165.396	161.848

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P4D1.5	0.16844E+16	0.18165E+00	0.73989E-02	0.1118318E+05
(3P)	3P4D2.5	0.15772E+16	0.15348E+01	0.44205E-01	0.1123091E+05
(3P)	3P4D3.5	0.16676E+16	0.72660E+01	0.14650E+00	0.1129561E+05
(3P)	3P4D1.5	0.15525E+16	0.19744E+01	0.74125E-01	0.1213298E+05
(3P)	3P4D2.5	0.15452E+16	0.46069E+01	0.11476E+00	0.1219066E+05
(3P)	3P4S1.5	0.13157E+16	0.30787E+01	0.97957E-01	0.1431639E+05
(3P)	4P4D1.5	0.57338E+15	0.16200E+01	0.14975E-01	0.3265151E+05
(3P)	4P4D2.5	0.58016E+15	0.14580E+02	0.13636E+00	0.3246753E+05
(3P)	4P4D3.5	0.59034E+15	0.64799E+02	0.61669E+00	0.3190810E+05
(3P)	4P4D1.5	0.61445E+15	0.14236E+02	0.14102E+00	0.3065604E+05
(3P)	4P4D2.5	0.62217E+15	0.33217E+02	0.33318E+00	0.3027550E+05
(3P)	4P4S1.5	0.69902E+15	0.14653E+02	0.16513E+00	0.2694691E+05

## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S2D1.5	104227.000	2.888	117345.000	178.185	43.225

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P2S0.5	0.20051E+16	0.98991E+00	0.54000E-01	0.9394073E+04
(3P)	3P2D1.5	0.14012E+16	0.13430E+01	0.30338E-01	0.1344266E+05
(3P)	3P2D2.5	0.13869E+16	0.12087E+02	0.18017E+00	0.1356142E+05
(3P)	3P2D0.5	0.12163E+16	0.17679E+01	0.63329E-01	0.1548707E+05
(3P)	3P2D1.5	0.12097E+16	0.68392E+01	0.17238E+00	0.1557147E+05
(3P)	4P2S0.5	0.42401E+15	0.18196E+02	0.12440E+00	0.4442470E+05

ORIGINAL PAGE IS  
OF POOR QUALITY

## 19 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3D2P1.5	104615.000	2.937	117345.000	112.776	35.887

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P250.5	0.20782E+16	0.90626E+01	0.50728E+00	0.9063715E+04
(3P)	3P201.5	0.14743E+16	0.65628E-01	0.15599E-02	0.1277629E+05
(3P)	3P232.5	0.14600E+16	0.59065E+00	0.92684E-02	0.1290156E+05
(3P)	3P270.5	0.12894E+16	0.18161E+01	0.75501E-01	0.1460920E+05
(3P)	3P271.5	0.12828E+16	0.90805E+01	0.18778E+00	0.1468429E+05
(3P)	4P250.5	0.35092E+15	0.15271E+02	0.86395E-01	0.5367666E+05

## INTERACTIONS -- QUADRUPOLE -

0.22107E+16	0.48584E+03
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## 20 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P4F3.5	104718.000	2.948	117345.000	114.962	44.774

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P432.5	0.18622E+16	0.15986E+02	0.63989E+00	0.1011531E+05
(3P)	3P433.5	0.18526E+16	0.26643E+01	0.79574E-01	0.1016777E+05
(3P)	4P432.5	0.39519E+15	0.22392E+02	0.14266E+00	0.4766444E+05
(3P)	4P433.5	0.40536E+15	0.37320E+01	0.24389E-01	0.4645840E+05

## INTERACTIONS -- QUADRUPOLE -

0.17785E+16	0.95100E+04
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## 21 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3D2F3.5	104882.000	2.963	117345.000	118.127	23.200

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P232.5	0.15103E+16	0.23200E+02	0.75318E+00	0.1247194E+05

ORIGINAL PAGE IS  
OF POOR QUALITY



## 22 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P403.5	105020.000	2.982	117345.000	122.111	47.714

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P402.5	0.19191E+16	0.63650E+00	0.26256E-01	0.9815469E+04
(3P)	3P403.5	0.19095E+16	0.38189E+01	0.11756E+00	0.9864843E+04
(3P)	3P402.5	0.17470E+16	0.14547E+02	0.55878E+00	0.1054074E+05
(3P)	4P402.5	0.33430E+15	0.10663E+01	0.58153E-02	0.5567929E+05
(3P)	4P403.5	0.34848E+15	0.63975E+01	0.35940E-01	0.5405405E+05
(3P)	4P42.5	0.38031E+15	0.21248E+02	0.13027E+00	0.4952947E+05

## INTERACTIONS -- QUADRUPOLE -

0.20991E+16	0.22943E+04
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## 23 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P201.5	105120.000	2.997	117345.000	125.362	24.613

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(3P)	3P201.5	0.15695E+16	0.50623E+01	0.12809E+00	0.1200192E+05
(3P)	3P202.5	0.15551E+16	0.56249E+00	0.94015E-02	0.1211240E+05
(3P)	3P200.5	0.13845E+16	0.15623E+02	0.70636E+00	0.1360544E+05
(3P)	3P201.5	0.13779E+16	0.31647E+01	0.70299E-01	0.1367054E+05

## INTERACTIONS -- QUADRUPOLE -

0.20946E+16	0.18058E+04
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24 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P2S0.5	106478.000	3.177	117345.000	229.414	228.447

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	# L VAC
(3P)	3S2*0.5	0.38327E+16	0.42841E-01	0.25470E-02	0.4914727E+04
(3P)	3S2*1.5	0.38153E+16	0.85681E-01	0.26351E-02	0.4237051E+04
(3P)	4S2*0.5	0.44002E+15	0.18198E+02	0.12909E+00	0.4280822E+05
(3P)	4S2*1.5	0.42401E+15	0.36397E+02	0.12440E+00	0.4442470E+05
(3P)	3D2*0.5	0.34358E+15	0.15271E+02	0.34586E-01	0.5482456E+05
(3P)	3D2*1.5	0.35092E+15	0.30542E+02	0.86395E-01	0.5357686E+05
(3P)	5S2*0.5	0.60888E+15	0.62573E+01	0.67475E-01	0.2816108E+05
(3P)	5S2*1.5	0.68377E+15	0.12515E+02	0.13795E+00	0.2754821E+05
(3P)	4D2*0.5	0.70938E+15	0.33206E+02	0.37976E+00	0.2655337E+05
(3P)	4D2*1.5	0.70505E+15	0.66413E+02	0.75437E+00	0.2671654E+05
(3P)	6S2*0.5	0.11786E+16	0.48298E+00	0.91770E-02	0.1598210E+05
(3P)	6S2*1.5	0.11952E+16	0.96596E+00	0.19612E-01	0.1576044E+05
(3P)	5D2*0.5	0.11939E+16	0.18625E+01	0.35847E-01	0.1577785E+05
(3P)	5D2*1.5	0.11910E+16	0.37250E+01	0.71524E-01	0.1581528E+05
(3P)	7S2*0.5	0.14414E+16	0.14761E+00	0.34301E-02	0.1305848E+05
(3P)	7S2*1.5	0.14476E+16	0.29523E+00	0.68897E-02	0.1301236E+05
(3P)	6D2*0.5	0.14563E+16	0.41039E+00	0.96346E-02	0.1293493E+05
(3P)	6D2*1.5	0.14532E+16	0.82077E+00	0.19229E-01	0.1296176E+05
(3P)	8S2*0.5	0.15958E+16	0.58878E-01	0.15147E-02	0.1180359E+05
(3P)	8S2*1.5	0.15958E+16	0.11775E+00	0.30295E-02	0.1180359E+05
(3P)	7D2*0.5	0.16064E+16	0.11085E+00	0.28743E-02	0.1171097E+05
(3P)	7D2*1.5	0.16084E+16	0.22169E+00	0.57486E-02	0.1171097E+05
(3P)	9S2*0.5	0.16957E+16	0.20937E-01	0.57234E-03	0.1110864E+05
(3P)	9S2*1.5	0.16957E+16	0.41874E-01	0.11447E-02	0.1110864E+05
(3P)	6D2*0.5	0.17051E+16	0.59344E-02	0.16313E-03	0.1104728E+05
(3P)	8D2*1.5	0.17051E+16	0.11669E-01	0.32625E-03	0.1104728E+05
(3P)	10S2*0.5	0.17639E+16	0.38157E-02	0.10850E-03	0.1067920E+05
(3P)	10S2*1.5	0.17639E+16	0.76314E-02	0.21700E-03	0.1067920E+05
(3P)	9D2*0.5	0.17727E+16	0.53232E-02	0.15213E-03	0.1062586E+05
(3P)	9D2*1.5	0.17727E+16	0.10646E-01	0.30426E-03	0.1062586E+05
(3P)	11S2*0.5	0.18138E+16	0.58016E-05	0.16964E-06	0.1038529E+05
(3P)	11S2*1.5	0.18138E+16	0.11603E-04	0.33928E-06	0.1038529E+05
(3P)	10D2*0.5	0.18228E+16	0.21651E-01	0.63625E-03	0.1033378E+05
(3P)	10D2*1.5	0.18228E+16	0.43302E-01	0.14725E-02	0.1033378E+05
(3P)	12S2*0.5	0.18511E+16	0.25938E-02	0.77405E-04	0.1017604E+05
(3P)	12S2*1.5	0.18511E+16	0.51870E-02	0.15481E-03	0.1017604E+05
(3P)	11D2*0.5	0.18597E+16	0.39872E-01	0.11954E-02	0.1012863E+05
(3P)	11D2*1.5	0.18597E+16	0.79745E-01	0.23909E-02	0.1012863E+05

25 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA***2
(3P)		434D2.5	106816.000	3.229	117345.000	245.633	245.633

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(3P)	3S4P1.5	0.44260E+16	0.43481E-02	0.45539E-03	0.4255859E+04
(3P)	3S4P2.5	0.44172E+16	0.18635E-02	0.13270E-03	0.4264391E+04
(3P)	4S4P1.5	0.59297E+15	0.34019E+02	0.48781E+00	0.3175620E+05
(3P)	4S4P2.5	0.58016E+15	0.14580E+02	0.13636E+00	0.3245753E+05
(3P)	3D4F1.5	0.40517E+15	0.34833E+00	0.34129E-02	0.4049000E+05
(3P)	3D4F2.5	0.40159E+15	0.63693E+01	0.41237E-01	0.4690431E+05
(3P)	3D4F3.5	0.39519E+15	0.29856E+02	0.14256E+00	0.4766444E+05
(3P)	3D4P1.5	0.36279E+15	0.33423E+00	0.29322E-02	0.5192103E+05
(3P)	3D4P2.5	0.35017E+15	0.14324E+00	0.80864E-03	0.5379236E+05
(3P)	3D4P1.5	0.34245E+15	0.17416E+01	0.14422E-01	0.5500550E+05
(3P)	3D4D2.5	0.34000E+15	0.43005E+01	0.23572E-01	0.5540160E+05
(3P)	3D4D3.5	0.33430E+15	0.14217E+01	0.53153E-02	0.5567929E+05
(3P)	5S4P1.5	0.57282E+15	0.21067E+02	0.19455E+00	0.3288392E+05
(3P)	5S4P2.5	0.58600E+15	0.90288E+01	0.85297E-01	0.3214400E+05
(3P)	4D4F1.5	0.63667E+15	0.92068E+00	0.94499E-02	0.2953580E+05
(3P)	4D4F2.5	0.64006E+15	0.16835E+02	0.17372E+00	0.2942907E+05
(3P)	4D4F3.5	0.64647E+15	0.78914E+02	0.82245E+00	0.2913753E+05
(3P)	4D4D1.5	0.65155E+15	0.39288E+01	0.41268E-01	0.2891009E+05
(3P)	4D4D2.5	0.65400E+15	0.97014E+01	0.10229E+00	0.2830184E+05
(3P)	4D4D3.5	0.66361E+15	0.32072E+01	0.34311E-01	0.2838490E+05
(3P)	4D4P1.5	0.66537E+15	0.75271E+00	0.30802E-02	0.2823854E+05
(3P)	4D4P2.5	0.67567E+15	0.32259E+00	0.35139E-02	0.2787845E+05
(3P)	6S4P1.5	0.10914E+16	0.11582E+01	0.20378E-01	0.1725923E+05
(3P)	6S4P2.5	0.11049E+16	0.49636E+00	0.88418E-02	0.1704739E+05
(3P)	5D4F1.5	0.11179E+16	0.37894E-01	0.63296E-03	0.1684920E+05
(3P)	5D4F2.5	0.11202E+16	0.69291E+00	0.12513E-01	0.1681520E+05
(3P)	5D4F3.5	0.11270E+16	0.32480E+01	0.59012E-01	0.1671402E+05
(3P)	5D4D1.5	0.11319E+16	0.16651E+02	0.34034E-02	0.1654170E+05
(3P)	5D4D2.5	0.11319E+16	0.46056E+00	0.84041E-02	0.1654170E+05
(3P)	5D4D3.5	0.11445E+16	0.15225E+00	0.23093E-02	0.1645820E+05
(3P)	5D4P1.5	0.11411E+16	0.40610E-01	0.74709E-03	0.1650710E+05
(3P)	5D4P2.5	0.11483E+16	0.17404E-01	0.32219E-03	0.1640420E+05
(3P)	7S4P1.5	0.13668E+16	0.30357E+00	0.66890E-02	0.1379170E+05
(3P)	7S4P2.5	0.13807E+16	0.13010E+00	0.28960E-02	0.1364256E+05
(3P)	6D4F1.5	0.13834E+16	0.49385E-02	0.11014E-03	0.1361655E+05
(3P)	6D4F2.5	0.13834E+16	0.90303E-01	0.20139E-02	0.1361655E+05
(3P)	6D4F3.5	0.13834E+16	0.42330E+00	0.94402E-02	0.1361655E+05
(3P)	6D4D1.5	0.13875E+16	0.33845E-01	0.75707E-03	0.1357589E+05
(3P)	6D4D2.5	0.13875E+16	0.83575E-01	0.18695E-02	0.1357589E+05
(3P)	6D4D3.5	0.13999E+16	0.27629E-01	0.62356E-03	0.1345533E+05
(3P)	6D4P1.5	0.14020E+16	0.99263E-02	0.22436E-03	0.1343544E+05
(3P)	6D4P2.5	0.14048E+16	0.42542E-02	0.96347E-04	0.1340842E+05
(3P)	8S4P1.5	0.15209E+16	0.81814E-01	0.20059E-02	0.1236543E+05
(3P)	8S4P2.5	0.15307E+16	0.35063E-01	0.86523E-03	0.1230618E+05
(3P)	7D4D1.5	0.15393E+16	0.29222E-02	0.72517E-04	0.1223691E+05
(3P)	7D4D2.5	0.15393E+16	0.72158E-02	0.17907E-03	0.1223691E+05
(3P)	7D4J3.5	0.15393E+16	0.23855E-02	0.59198E-04	0.1223691E+05
(3P)	7D4P1.5	0.15610E+16	0.45602E-02	0.11476E-03	0.1206709E+05

(3P)	7D4D2.5	0.15010E+16	0.19544E-02	0.49132E-04	0.1205709E+05
(3P)	954D1.5	0.16326E+16	0.35052E-01	0.92255E-03	0.1153802E+05
(3P)	954D2.5	0.16326E+16	0.15022E-01	0.39538E-03	0.1153802E+05
(3P)	8D4D1.5	0.16403E+16	0.28254E-04	0.74715E-06	0.1148369E+05
(3P)	8D4D2.5	0.16403E+16	0.69770E-04	0.18450E-05	0.1143369E+05
(3P)	8D4D3.5	0.16403E+16	0.23065E-04	0.60992E-06	0.1143369E+05
(3P)	8D4D1.5	0.16580E+16	0.19559E-02	0.52279E-04	0.1135105E+05
(3P)	8D4D2.5	0.16580E+16	0.83623E-03	0.22405E-04	0.1136105E+05
(3P)	1054D1.5	0.17026E+16	0.66443E-02	0.18238E-03	0.1106317E+05
(3P)	1054D2.5	0.17026E+16	0.28476E-02	0.78163E-04	0.1106317E+05
(3P)	9D4D1.5	0.17087E+16	0.20664E-02	0.55922E-04	0.1102414E+05
(3P)	9D4D2.5	0.17087E+16	0.51027E-02	0.14056E-03	0.1102414E+05
(3P)	9D4D3.5	0.17087E+16	0.16609E-02	0.46467E-04	0.1102414E+05
(3P)	9D4D1.5	0.17281E+16	0.13911E-02	0.38755E-04	0.1090037E+05
(3P)	9D4D2.5	0.17281E+16	0.59620E-03	0.15609E-04	0.1090037E+05
(3P)	1154D1.5	0.17533E+16	0.65922E-03	0.13633E-06	0.1074345E+05
(3P)	1154D2.5	0.17533E+16	0.28252E-05	0.79857E-07	0.1074345E+05
(3P)	10D4D1.5	0.17608E+16	0.26255E-02	0.74530E-04	0.1069747E+05
(3P)	10D4D2.5	0.17608E+16	0.64832E-02	0.18404E-03	0.1069747E+05
(3P)	10D4D3.5	0.17608E+16	0.21433E-02	0.60841E-04	0.1069747E+05
(3P)	10D4D1.5	0.17787E+16	0.12259E-02	0.35154E-04	0.1058985E+05
(3P)	10D4D2.5	0.17787E+16	0.52540E-03	0.15066E-04	0.1058985E+05
(3P)	1254D1.5	0.17887E+16	0.76384E-02	0.22027E-03	0.1053075E+05
(3P)	1254D2.5	0.17887E+16	0.32736E-02	0.94400E-04	0.1053075E+05

INTERACTIONS -- QUADRUPOLE -

0.22645E+16 0.10326E+05

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(3P)	47471.5	106998.000	3.259	117345.000	255.286	258.384	

## INTERACTIONS -- DIPOLE --

DESIGNATION	#	RAA***2	F	# L VAC	
(3P)	35470.5	0.44667E+16	0.10639E-01	0.15322E-02	0.4217094E+04
(3P)	35471.5	0.446003E+16	0.34044E-02	0.26479E-03	0.4223145E+04
(3P)	35472.5	0.44514E+16	0.11490E-01	0.54973E-03	0.4231547E+04
(3P)	45470.5	0.63667E+15	0.19772E+02	0.40559E+00	0.2958580E+05
(3P)	45471.5	0.62726E+15	0.63266E+01	0.63978E-01	0.3003003E+05
(3P)	45472.5	0.61445E+15	0.21354E+02	0.14102E+00	0.3065604E+05
(3P)	30470.5	0.40197E+15	0.47103E+01	0.61048E-01	0.4585035E+05
(3P)	30471.5	0.39707E+15	0.15072E+01	0.96483E-02	0.4743833E+05
(3P)	30472.5	0.38445E+15	0.50872E+01	0.21020E-01	0.4899559E+05
(3P)	30470.5	0.37880E+15	0.17706E+01	0.21626E-01	0.4972650E+05
(3P)	30471.5	0.37673E+15	0.11332E+02	0.68824E-01	0.5000000E+05
(3P)	30472.5	0.37428E+15	0.22310E+02	0.89745E-01	0.5032712E+05
(3P)	55470.5	0.53025E+15	0.14380E+02	0.12293E+00	0.3552398E+05
(3P)	55471.5	0.53854E+15	0.46015E+01	0.39950E-01	0.3497726E+05
(3P)	55472.5	0.55172E+15	0.15531E+02	0.13514E+00	0.3414134E+05
(3P)	40470.5	0.60710E+15	0.45891E+01	0.44915E-01	0.3102699E+05
(3P)	40471.5	0.61727E+15	0.29371E+02	0.29228E+00	0.3051571E+05
(3P)	40472.5	0.61972E+15	0.57623E+02	0.57770E+00	0.3039514E+05
(3P)	40470.5	0.62669E+15	0.12258E+02	0.12384E+00	0.3005711E+05
(3P)	40471.5	0.63159E+15	0.39223E+01	0.39937E-01	0.2982404E+05
(3P)	40472.5	0.64138E+15	0.13239E+02	0.13689E+00	0.2936857E+05
(3P)	65470.5	0.10436E+16	0.69229E+00	0.11703E-01	0.1795300E+05
(3P)	65471.5	0.10571E+16	0.22152E+00	0.37752E-02	0.1781896E+05
(3P)	65472.5	0.10707E+16	0.74769E+00	0.12906E-01	0.1759324E+05
(3P)	50470.5	0.10976E+16	0.17901E+00	0.31676E-02	0.1716149E+05
(3P)	50471.5	0.10976E+16	0.11457E+01	0.20273E-01	0.1716149E+05
(3P)	50472.5	0.10776E+16	0.22556E+01	0.39912E-01	0.1715149E+05
(3P)	50470.5	0.11033E+16	0.55239E+00	0.98248E-02	0.1707359E+05
(3P)	50471.5	0.11066E+16	0.17676E+00	0.31540E-02	0.1701838E+05
(3P)	50472.5	0.11140E+16	0.59659E+00	0.10714E-01	0.1690903E+05
(3P)	75470.5	0.13218E+16	0.17527E+00	0.37347E-02	0.1425110E+05
(3P)	75471.5	0.13325E+16	0.56083E-01	0.12048E-02	0.1413627E+05
(3P)	75472.5	0.13464E+16	0.18929E+00	0.41053E-02	0.1398993E+05
(3P)	60470.5	0.13332E+16	0.28652E-01	0.62505E-03	0.1391982E+05
(3P)	60471.5	0.13332E+16	0.18337E+00	0.40004E-02	0.1391982E+05
(3P)	60472.5	0.13532E+16	0.36101E+00	0.78757E-02	0.1391982E+05
(3P)	60470.5	0.13677E+16	0.12706E+00	0.28016E-02	0.1377221E+05
(3P)	60471.5	0.13677E+16	0.40657E-01	0.39646E-03	0.1377221E+05
(3P)	60472.5	0.13705E+16	0.13722E+00	0.30320E-02	0.1374381E+05
(3P)	85470.5	0.14713E+16	0.41559E-01	0.98577E-03	0.1280246E+05
(3P)	85471.5	0.14866E+16	0.13298E-01	0.31871E-03	0.1267100E+05
(3P)	85472.5	0.14964E+16	0.44885E-01	0.10823E-02	0.1258811E+05
(3P)	70470.5	0.15050E+16	0.13490E-02	0.32752E-04	0.1251564E+05
(3P)	70471.5	0.15050E+16	0.86338E-02	0.29948E-03	0.1251564E+05
(3P)	70472.5	0.15050E+16	0.16998E-01	0.41242E-03	0.1251564E+05
(3P)	70470.5	0.15267E+16	0.58115E-01	0.14304E-02	0.1233806E+05
(3P)	70471.5	0.15267E+16	0.18596E-01	0.45770E-03	0.1233806E+05
(3P)	70472.5	0.15267E+16	0.62766E-01	0.15448E-02	0.1233806E+05

(3P)	95420.5	0.15983E+16	0.16882E-01	0.43499E-03	0.1178550E+05
(3P)	95421.5	0.15983E+16	0.54021E-02	0.13719E-03	0.1178550E+05
(3P)	95422.5	0.15983E+16	0.18233E-01	0.46590E-03	0.1178550E+05
(3P)	80420.5	0.16060E+16	0.17153E-03	0.44410E-05	0.1172883E+05
(3P)	80421.5	0.16060E+16	0.10978E-02	0.28422E-04	0.1172883E+05
(3P)	80422.5	0.16060E+16	0.21612E-02	0.55957E-04	0.1172883E+05
(3P)	80420.5	0.16237E+16	0.23557E-01	0.61665E-03	0.1150093E+05
(3P)	80421.5	0.16237E+16	0.75380E-02	0.19732E-03	0.1160043E+05
(3P)	80422.5	0.16237E+16	0.25442E-01	0.66599E-03	0.1150093E+05
(3P)	105420.5	0.16683E+16	0.22045E-02	0.59294E-04	0.1129050E+05
(3P)	105421.5	0.16683E+16	0.70543E-03	0.18373E-04	0.1129050E+05
(3P)	105422.5	0.16683E+16	0.23810E-02	0.64039E-04	0.1129050E+05
(3P)	90420.5	0.16744E+16	0.34412E-02	0.92890E-04	0.1124985E+05
(3P)	90421.5	0.16744E+16	0.22024E-01	0.59449E-03	0.1124985E+05
(3P)	90422.5	0.16744E+16	0.43359E-01	0.11704E-02	0.1124985E+05
(3P)	90420.5	0.16938E+16	0.17195E-01	0.45953E-03	0.1112100E+05
(3P)	90421.5	0.16938E+16	0.55021E-02	0.15024E-03	0.1112100E+05
(3P)	90422.5	0.16938E+16	0.18571E-01	0.50710E-03	0.1112100E+05
(3P)	115420.5	0.17190E+16	0.18337E-03	0.50816E-05	0.1095770E+05
(3P)	115421.5	0.17190E+16	0.58675E-04	0.16251E-05	0.1095770E+05
(3P)	115422.5	0.17190E+16	0.19804E-03	0.54883E-05	0.1095770E+05
(3P)	100420.5	0.17266E+16	0.38532E-02	0.10725E-03	0.1090988E+05
(3P)	100421.5	0.17266E+16	0.24661E-01	0.68641E-03	0.1090988E+05
(3P)	100422.5	0.17266E+16	0.48550E-01	0.13514E-02	0.1090988E+05
(3P)	100420.5	0.17444E+16	0.15965E-01	0.44897E-03	0.1079797E+05
(3P)	100421.5	0.17444E+16	0.51084E-02	0.14366E-03	0.1079797E+05
(3P)	100422.5	0.17444E+16	0.17242E-01	0.48490E-03	0.1079797E+05
(3P)	125420.5	0.17544E+16	0.65276E-02	0.18463E-03	0.1073652E+05
(3P)	125421.5	0.17544E+16	0.20888E-02	0.59078E-04	0.1073652E+05
(3P)	125422.5	0.17544E+16	0.70500E-02	0.19940E-03	0.1073652E+05

INTERACTIONS -- QUADRUPOLE -

0.21670E+16      0.20191E+03

ORIGINAL PAGE IS  
OF POOR QUALITY

## 27 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(3P)		SS420.5	109813.000	3.834	117345.000	547.697	101.290

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	# L VAC
(3P)	3P4D0.5	0.28332E+16	0.31556E+00	0.14413E-01	0.6648492E+04
(3P)	3P4D1.5	0.28291E+16	0.31556E+00	0.71960E-02	0.6659230E+04
(3P)	3P420.5	0.27006E+16	0.67292E-01	0.29297E-02	0.6974957E+04
(3P)	3P421.5	0.26972E+16	0.33646E+00	0.73151E-02	0.6983727E+04
(3P)	3P451.5	0.24604E+16	0.14124E+00	0.28011E-02	0.7655793E+04
(3P)	4P4D0.5	0.57508E+15	0.25080E+02	0.23252E+00	0.3275466E+05
(3P)	4P4D1.5	0.57131E+15	0.25080E+02	0.11550E+00	0.3297065E+05
(3P)	4P420.5	0.53326E+15	0.57522E+01	0.49452E-01	0.3532321E+05
(3P)	4P421.5	0.53025E+15	0.28761E+02	0.12293E+00	0.3552398E+05
(3P)	4P451.5	0.44567E+15	0.15442E+02	0.55473E-01	0.4226543E+05

## 28 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(3P)		SS422.5	109927.000	3.834	117345.000	547.697	101.291

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	# L VAC
(3P)	3P4D1.5	0.28505E+16	0.12622E-01	0.87009E-03	0.6608074E+04
(3P)	3P4D2.5	0.28434E+16	0.11360E+00	0.52074E-02	0.6624707E+04
(3P)	3P4D3.5	0.28338E+16	0.50490E+00	0.17299E-01	0.6647168E+04
(3P)	3P421.5	0.27187E+16	0.12113E+00	0.79633E-02	0.5925566E+04
(3P)	3P422.5	0.27113E+16	0.28263E+00	0.12354E-01	0.6947336E+04
(3P)	3P451.5	0.24819E+16	0.14124E+00	0.84767E-02	0.7569555E+04
(3P)	4P4D1.5	0.59276E+15	0.10032E+01	0.14381E-01	0.3177629E+05
(3P)	4P4D2.5	0.58600E+15	0.90238E+01	0.85297E-01	0.3214400E+05
(3P)	4P4D3.5	0.57563E+15	0.40126E+02	0.27939E+00	0.3271161E+05
(3P)	4P421.5	0.55172E+15	0.10354E+02	0.13814E+00	0.3416134E+05
(3P)	4P422.5	0.54400E+15	0.24159E+02	0.21188E+00	0.3462604E+05
(3P)	4P451.5	0.46715E+15	0.15442E+02	0.17444E+00	0.4032258E+05

29 - SEQ. NUM.

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P) 552P1.5	110108.000	3.886	117345.000	577.602	7.596

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	# L VAC
(3P) 3P2S0.5	0.31129E+16	0.97773E-01	0.98135E-02	0.6051070E+04
(3P) 3P2D1.5	0.25090E+16	0.77129E-01	0.31198E-02	0.7507504E+04
(3P) 3P2D2.5	0.24947E+16	0.69416E+00	0.18612E-01	0.7550586E+04
(3P) 3P2P0.5	0.23240E+16	0.78329E-01	0.58675E-02	0.8105039E+04
(3P) 3P2P1.5	0.23175E+16	0.39164E+00	0.14632E-01	0.8128098E+04
(3P) 4P2S0.5	0.68377E+15	0.62573E+01	0.13795E+00	0.2754821E+05



## OXYGEN ----- 8 ---- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(4S)	109836.687
	2	(2D)	136689.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS				
1	(4S) 2P3P0.0	226.00	158.00	0.0		
2	(2D) 2P3P0.0	226.00	158.00	0.0		
3	(2D) 2P1D2.0	15867.00				
4	(4S) 3S5S2.0	73767.00				
5	(4S) 3S3S1.0	76794.00				
6	(4S) 3P5P1.0	86625.00	86527.00	86631.00		
7	(4S) 3P3P0.0	88631.00	88630.00	88630.00		
8	(4S) 4S5S2.0	95476.00				
9	(4S) 4S3S1.0	96225.00				
10	(4S) 3D5D0.0	97420.00	97420.00	97420.00	97420.00	97420.00
11	(4S) 3D3D1.0	97485.00	97488.00	97488.00		
12	(4S) 4P5P1.0	99092.00	99093.00	99094.00		
13	(4S) 4P3P0.0	99680.00	99530.00	99680.00		
14	(2D) 3S3D1.0	101155.00	101147.00	101135.00		
15	(4S) 5S5S2.0	102116.00				
16	(4S) 5S3S1.0	102411.00				
17	(2D) 3S1D2.0	102661.00				
18	(4S) 4D5D0.0	102865.00	102865.00	102865.00	102865.00	102865.00
19	(4S) 4D3D1.0	102908.00	102908.00	102908.00		
20	(4S) 5P3P0.0	103869.00	103869.00	103869.00		
21	(4S) 6S5S2.0	105019.00				
22	(4S) 6S3S1.0	105164.00				
23	(4S) 5D5D0.0	105385.00	105335.00	105385.00	105385.00	105385.00
24	(4S) 5D3D1.0	105408.00	105408.00	105408.00		
25	(4S) 6P3P0.0	105911.00	105911.00	105911.00		
26	(4S) 7S5S2.0	106545.00				
27	(4S) 7S3S1.0	106627.00				
28	(4S) 6D5D0.0	106751.00	106751.00	106751.00	106751.00	106751.00
29	(4S) 6D3D1.0	106765.00	106765.00	106765.00		
30	(4S) 8S5S2.0	107445.00				
31	(4S) 8S3S1.0	107497.00				
32	(4S) 7D5D0.0	107573.00	107573.00	107573.00	107573.00	107573.00
33	(4S) 7D3D1.0	107582.00	107532.00	107582.00		
34	(4S) 9S5S2.0	108021.00				
35	(4S) 9S3S1.0	108057.00				
36	(4S) 8D5D0.0	108105.00	108105.00	108105.00	108105.00	108105.00
37	(4S) 8D3D1.0	108116.00	108116.00	108116.00		
38	(4S) 10S5S2.0	108412.00				
39	(4S) 10S3S1.0	108436.00				
40	(4S) 9D5D0.0	108470.00	108470.00	108470.00	108470.00	108470.00
41	(4S) 9D3D1.0	108477.00	108477.00	108477.00		
42	(4S) 11S3S1.0	108707.00				
43	(4S) 10D5D0.0	108731.00	108731.00	108731.00	108731.00	108731.00
44	(4S) 10D3D1.0	108734.00	108734.00	108734.00		

Table 7. Oxygen

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(2D)	*	2P3P2.0	0.0	0.896	136589.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(4S)	*	2P3P2.0	0.0	1.000	109836.687	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(2D)	*	2P1D2.0	15867.000	0.953	136689.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(4S)		3S552.0	73767.000	1.744	109836.687	24.640	22.917

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

(4S)	3P5P1.0	0.24220E+16	0.45769E+01	0.17871E+00	0.7777259E+04
(4S)	3P5P2.0	0.24224E+16	0.76281E+01	0.29790E+00	0.7775047E+04
(4S)	3P5P3.0	0.24231E+16	0.10679E+02	0.41719E+00	0.7773629E+04
(4S)	4P5P1.0	0.47703E+16	0.65770E-02	0.50590E-03	0.3948667E+04
(4S)	4P5P2.0	0.47705E+16	0.10962E-01	0.84303E-03	0.3948511E+04
(4S)	4P5P3.0	0.47707E+16	0.15346E-01	0.11303E-02	0.3948355E+04

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		3S3S1.0	76794.000	1.822	109836.887	29.207	26.997

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(45)	3P3P0.0	0.22297E+16	0.29900E+01	0.10748E+00	0.8448086E+04
(45)	3P3P1.0	0.22295E+16	0.89697E+01	0.32239E+00	0.8448797E+04
(45)	3P3P2.0	0.22295E+16	0.14950E+02	0.53733E+00	0.8448797E+04
(45)	4P3P0.0	0.43109E+16	0.94961E-02	0.05996E-03	0.4369480E+04
(45)	4P3P1.0	0.43109E+16	0.28488E-01	0.19798E-02	0.4369480E+04
(45)	4P3P2.0	0.43109E+16	0.47480E-01	0.32998E-02	0.4369480E+04
(45)	5P3P0.0	0.51000E+16	0.28012E-03	0.23032E-04	0.3693444E+04
(45)	5P3P1.0	0.51000E+16	0.84035E-03	0.69093E-04	0.3693444E+04
(45)	5P3P2.0	0.51000E+16	0.14006E-02	0.11516E-03	0.3693444E+04

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		3P5P1.0	86625.000	2.174	109836.587	43.991	43.706

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	# L VAC	
(45)	35552.0	0.24220E+16	0.76282E+01	0.17871E+00	0.7777258E+04
(45)	45552.0	0.16672E+16	0.58378E+01	0.15691E+00	0.1129816E+05
(45)	30500.0	0.20334E+16	0.55182E+01	0.18089E+00	0.9263547E+04
(45)	30501.0	0.20334E+16	0.12416E+02	0.40700E+00	0.9263547E+04
(45)	30502.0	0.20334E+16	0.96567E+01	0.31656E+00	0.9263547E+04
(45)	55552.0	0.29180E+16	0.36074E+00	0.16970E-01	0.6455359E+04
(45)	40500.0	0.30590E+16	0.29560E+00	0.14578E-01	0.6157633E+04
(45)	40501.0	0.30590E+16	0.66510E+00	0.32800E-01	0.6157633E+04
(45)	40502.0	0.30590E+16	0.51730E+00	0.25511E-01	0.6157633E+04
(45)	65552.0	0.34648E+16	0.10472E+00	0.58495E-02	0.5436555E+04
(45)	50500.0	0.35337E+16	0.67929E-01	0.38698E-02	0.5330488E+04
(45)	50501.0	0.35337E+16	0.15284E+00	0.87069E-02	0.5330488E+04
(45)	50502.0	0.35337E+16	0.11887E+00	0.67721E-02	0.5330488E+04
(45)	75552.0	0.37522E+16	0.46733E-01	0.28269E-02	0.5020078E+04
(45)	60500.0	0.37910E+16	0.25961E-01	0.15879E-02	0.4966695E+04
(45)	60501.0	0.37910E+16	0.56456E-01	0.35727E-02	0.4966695E+04
(45)	60502.0	0.37910E+16	0.45467E-01	0.27788E-02	0.4966695E+04
(45)	85552.0	0.39218E+16	0.25433E-01	0.16080E-02	0.4803070E+04
(45)	70500.0	0.39459E+16	0.12789E-01	0.81356E-03	0.4773723E+04
(45)	70501.0	0.39459E+16	0.26775E-01	0.10305E-02	0.4773723E+04
(45)	70502.0	0.39459E+16	0.22381E-01	0.14237E-02	0.4773723E+04
(45)	95552.0	0.40303E+16	0.15594E-01	0.10132E-02	0.4673770E+04
(45)	80500.0	0.40461E+16	0.71956E-02	0.46336E-03	0.4655492E+04
(45)	80501.0	0.40461E+16	0.16190E-01	0.10560E-02	0.4655492E+04
(45)	80502.0	0.40461E+16	0.12592E-01	0.82138E-03	0.4655492E+04
(45)	105552.0	0.41039E+16	0.10381E-01	0.68691E-03	0.4589891E+04
(45)	90500.0	0.41148E+16	0.45527E-02	0.30201E-03	0.4577703E+04
(45)	90501.0	0.41148E+16	0.10243E-01	0.67952E-03	0.4577703E+04
(45)	90502.0	0.41148E+16	0.79672E-02	0.52852E-03	0.4577703E+04
(45)	100500.0	0.41640E+16	0.31301E-02	0.21012E-03	0.4523655E+04
(45)	100501.0	0.41640E+16	0.70426E-02	0.47277E-03	0.4523655E+04
(45)	100502.0	0.41640E+16	0.54776E-02	0.36771E-03	0.4523655E+04

INTERACTIONS -- QUADRUPOLE -

0.23481E+16	0.17460E+04
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7 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)	3P5P2.0	86627.000	2.174	109836.587	43.991	43.706

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	# L VAC
(45)	35552.0	0.24224E+16	0.75281E+01	0.29790E+00
(45)	45552.0	0.16668E+16	0.58377E+01	0.15637E+00
(45)	30501.0	0.20330E+16	0.24831E+01	0.81386E-01
(45)	30502.0	0.20330E+16	0.96567E+01	0.31650E+00
(45)	30503.0	0.20330E+16	0.15451E+02	0.50640E+00
(45)	55552.0	0.29170E+16	0.36073E+00	0.16957E-01
(45)	40501.0	0.30587E+16	0.13302E+00	0.05592E-02
(45)	40502.0	0.30587E+16	0.51730E+00	0.25508E-01
(45)	40503.0	0.30587E+16	0.82768E+00	0.40813E-01
(45)	65552.0	0.34646E+16	0.10472E+00	0.53438E-02
(45)	50501.0	0.35334E+16	0.30568E-01	0.17412E-02
(45)	50502.0	0.35334E+16	0.11887E+00	0.67714E-02
(45)	50503.0	0.35334E+16	0.19020E+00	0.10934E-01
(45)	75552.0	0.37519E+16	0.46732E-01	0.28266E-02
(45)	60501.0	0.37907E+16	0.11691E-01	0.71447E-03
(45)	60502.0	0.37907E+16	0.45467E-01	0.27735E-02
(45)	60503.0	0.37907E+16	0.72746E-01	0.44456E-02
(45)	85552.0	0.39214E+16	0.25433E-01	0.16078E-02
(45)	70501.0	0.39455E+16	0.57551E-02	0.36606E-03
(45)	70502.0	0.39455E+16	0.22381E-01	0.14236E-02
(45)	70503.0	0.39455E+16	0.35809E-01	0.22777E-02
(45)	95552.0	0.40299E+16	0.15593E-01	0.10131E-02
(45)	80501.0	0.40457E+16	0.32380E-02	0.21119E-03
(45)	80502.0	0.40457E+16	0.12592E-01	0.32130E-03
(45)	80503.0	0.40457E+16	0.20148E-01	0.13141E-02
(45)	105552.0	0.41035E+16	0.10381E-01	0.68674E-03
(45)	90501.0	0.41145E+16	0.20487E-02	0.13559E-03
(45)	90502.0	0.41145E+16	0.79672E-02	0.52348E-03
(45)	90503.0	0.41145E+16	0.12748E-01	0.84555E-03
(45)	100501.0	0.41636E+16	0.14085E-02	0.94545E-04
(45)	100502.0	0.41636E+16	0.54776E-02	0.36768E-03
(45)	100503.0	0.41636E+16	0.87642E-02	0.53828E-03

INTERACTIONS -- QUADRUPOLE -

0.23482E+16	0.39525E+03
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ORIGINAL PAGE IS  
OF POOR QUALITY

8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		3P3P0.0	88631.000	2.274	109836.687	53.870	53.613

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(4S)	3S3S1.0	0.22297E+16	0.89699E+01	0.10748E+00	0.844808E+04
(4S)	4S3S1.0	0.14304E+16	0.77275E+01	0.17820E+00	0.131682E+05
(4S)	3D3D1.0	0.16683E+16	0.35014E+02	0.94175E+00	0.1129050E+05
(4S)	5S3S1.0	0.25957E+16	0.42418E+00	0.17750E-01	0.725689E+04
(4S)	4D3D1.0	0.26893E+16	0.96950E+00	0.42033E-01	0.7004270E+04
(4S)	6S3S1.0	0.31142E+16	0.12076E+00	0.60626E-02	0.6043509E+04
(4S)	5D3D1.0	0.31602E+16	0.16324E+00	0.83155E-02	0.5960539E+04
(4S)	7S3S1.0	0.33898E+16	0.53743E-01	0.29370E-02	0.5556789E+04
(4S)	6D3D1.0	0.34158E+16	0.51626E-01	0.28540E-02	0.5514500E+04
(4S)	8S3S1.0	0.35537E+16	0.29443E-01	0.15858E-02	0.5300539E+04
(4S)	7D3D1.0	0.35697E+16	0.22466E-01	0.12929E-02	0.5276766E+04
(4S)	9S3S1.0	0.36892E+16	0.18291E-01	0.10790E-02	0.5147738E+04
(4S)	8D3D1.0	0.36703E+16	0.14340E-01	0.84851E-03	0.5132152E+04
(4S)	10S3S1.0	0.37306E+16	0.12124E-01	0.72917E-03	0.5049227E+04
(4S)	9D3D1.0	0.37383E+16	0.82221E-02	0.49552E-03	0.5038797E+04
(4S)	11S3S1.0	0.37816E+16	0.86204E-02	0.52554E-03	0.4981070E+04
(4S)	10D3D1.0	0.37867E+16	0.44528E-02	0.27193E-03	0.4974379E+04

INTERACTIONS -- QUADRUPOLE -

0.32549E+16	0.14662E+04
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9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		3D5D0.0	97420.000	2.972	109836.687	120.048	46.978

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(4S)	3P5P1.0	0.20334E+16	0.16554E+02	0.18089E+00	0.9263547E+04
(4S)	4P5P1.0	0.31495E+15	0.30424E+02	0.15447E+00	0.5980861E+05

INTERACTIONS -- QUADRUPOLE -

0.21306E+16	0.84879E+04
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## 10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		3D3D1.0	97488.000	2.980	109836.687	121.772	47.930

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	W	RAA**2	F	# L VAC	
(4S)	3P3P0.0	0.16683E+16	0.11671E+02	0.94175E+00	0.1129050E+05
(4S)	3P3P1.0	0.16685E+16	0.87535E+01	0.23546E+00	0.112923E+05
(4S)	3P3P2.0	0.16685E+16	0.58357E+00	0.94166E-02	0.1128923E+05
(4S)	4P3P0.0	0.41290E+15	0.14832E+02	0.93731E-01	0.4562044E+05
(4S)	4P3P1.0	0.41290E+15	0.11124E+02	0.74047E-01	0.4562044E+05
(4S)	4P3P2.0	0.41290E+15	0.74162E+00	0.49366E-02	0.4562044E+05
(4S)	5P3P0.0	0.12020E+16	0.10343E+00	0.20043E-02	0.1557152E+05
(4S)	5P3P1.0	0.12020E+16	0.77575E-01	0.15032E-02	0.1567152E+05
(4S)	5P3P2.0	0.12020E+16	0.51717E-02	0.10021E-03	0.1567152E+05
(4S)	6P3P0.0	0.15866E+16	0.20575E-01	0.52628E-03	0.1187225E+05
(4S)	6P3P1.0	0.15866E+16	0.15431E-01	0.39471E-03	0.1187225E+05
(4S)	6P3P2.0	0.15866E+16	0.10288E-02	0.26314E-04	0.1187225E+05

## INTERACTIONS -- QUADRUPOLE -

0.21184E+16	0.91619E+04
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## 11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		4P3P0.0	99680.000	3.286	109836.687	264.480	263.075

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	W	RAA**2	F	# L VAC	
(4S)	3S3S1.0	0.43109E+16	0.28488E-01	0.65995E-03	0.4359480E+04
(4S)	4S3S1.0	0.65080E+15	0.46650E+02	0.16315E+00	0.2394356E+05
(4S)	3D3D1.0	0.41290E+15	0.44497E+02	0.98731E-01	0.4562044E+05
(4S)	5S3S1.0	0.51443E+15	0.37902E+02	0.31433E+00	0.3651662E+05
(4S)	4D3D1.0	0.60804E+15	0.12446E+03	0.12201E+01	0.3097893E+05
(4S)	6S3S1.0	0.10330E+16	0.16945E+01	0.28220E-01	0.1823486E+05
(4S)	5D3D1.0	0.10790E+16	0.51458E+01	0.89507E-01	0.1745810E+05
(4S)	7S3S1.0	0.13086E+16	0.44269E+00	0.93390E-02	0.1439470E+05
(4S)	6D3D1.0	0.13346E+16	0.10802E+01	0.23241E-01	0.1411432E+05
(4S)	8S3S1.0	0.14725E+16	0.18916E+00	0.44902E-02	0.1279263E+05
(4S)	7D3D1.0	0.14885E+16	0.39175E+00	0.94006E-02	0.1265502E+05
(4S)	9S3S1.0	0.15779E+16	0.10226E+03	0.26013E-02	0.1193745E+05
(4S)	8D3D1.0	0.15890E+16	0.20651E+00	0.52904E-02	0.1185396E+05
(4S)	10S3S1.0	0.16493E+16	0.61942E-01	0.16470E-02	0.1142074E+05
(4S)	9D3D1.0	0.16570E+16	0.11388E+00	0.30422E-02	0.1136751E+05
(4S)	11S3S1.0	0.17004E+16	0.41570E-01	0.11395E-02	0.1107787E+05
(4S)	10D3D1.0	0.17055E+16	0.64805E-01	0.17818E-02	0.1104484E+05

## INTERACTIONS -- QUADRUPOLE -

0.20814E+16	0.25566E+05
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## 12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)		353D1.0	101155.000	1.757	136589.000	25.349	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

W L VAC

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		55552.0	102116.000	3.769	109836.687	511.630	96.993

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

(45)	3P5>1.0	0.29180E+16	0.21644E+00	0.16970E-01	0.6455359E+04
(45)	3P5>2.0	0.29176E+16	0.36073E+00	0.16967E-01	0.6456191E+04
(45)	3P5>3.0	0.29168E+16	0.50503E+00	0.16963E-01	0.6457859E+04
(45)	4P5>1.0	0.55962E+15	0.19182E+02	0.29359E+00	0.3306879E+05
(45)	4P5>2.0	0.56943E+15	0.31970E+02	0.29349E+00	0.3307972E+05
(45)	4P5>3.0	0.56924E+15	0.44759E+02	0.29339E+00	0.3309067E+05

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		55351.0	102411.000	3.843	109836.587	552.791	550.976

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

(45)	3P3>0.0	0.25957E+16	0.14139E+00	0.17750E-01	0.7256891E+04
(45)	3P3>1.0	0.25959E+16	0.42417E+00	0.17751E-01	0.7256367E+04
(45)	3P3>2.0	0.25959E+16	0.70696E+00	0.17751E-01	0.7256367E+04
(45)	4P3>0.0	0.51443E+15	0.12634E+02	0.31433E+00	0.3661662E+05
(45)	4P3>1.0	0.51443E+15	0.37301E+02	0.31433E+00	0.3661662E+05
(45)	4P3>2.0	0.51443E+15	0.63170E+02	0.31433E+00	0.3661662E+05
(45)	5P3>0.0	0.27464E+15	0.48096E+02	0.21295E+00	0.6858706E+05
(45)	5P3>1.0	0.27464E+15	0.14428E+03	0.63882E+00	0.6858706E+05
(45)	5P3>2.0	0.27464E+15	0.24048E+03	0.10647E+01	0.6858706E+05
(45)	6P3>0.0	0.65928E+15	0.34914E+00	0.37108E-02	0.2857143E+05
(45)	6P3>1.0	0.65928E+15	0.10474E+01	0.1132E-01	0.2857143E+05
(45)	6P3>2.0	0.65928E+15	0.17457E+01	0.18554E-01	0.2857143E+05



15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)		3512.0	102661.000	1.795	135539.000	27.588	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		4350.0	102865.000	3.966	109836.687	485.044	58.727

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

(45)	3P5>1.0	0.30590E+16	0.88681E+00	0.14578E-01	0.6157633E+04
(45)	4P5>1.0	0.71070E+15	0.57840E+02	0.22090E+00	0.2650411E+05

INTERACTIONS -- QUADRUPOLE -

0.11049E+16	0.96990E+05
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17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		4330.0	102908.000	3.979	109836.687	491.912	195.220

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

(45)	3P3>0.0	0.26893E+16	0.32317E+00	0.42033E-01	0.7004270E+04
(45)	3>3>1.0	0.26895E+16	0.24237E+00	0.10509E-01	0.7003781E+04
(45)	3P3>2.0	0.26895E+16	0.16158E-01	0.42036E-03	0.7003781E+04
(45)	4P3>0.0	0.60804E+15	0.41488E+02	0.12201E+01	0.3097893E+05
(45)	4P3>1.0	0.60804E+15	0.31116E+02	0.30501E+00	0.3097893E+05
(45)	4P3>2.0	0.60804E+15	0.20744E+01	0.12201E-01	0.3097893E+05
(45)	5P3>0.0	0.18102E+15	0.66828E+02	0.19502E+00	0.1040582E+06
(45)	5P3>1.0	0.18102E+15	0.50121E+02	0.14627E+00	0.1040582E+06
(45)	5P3>2.0	0.18102E+15	0.33414E+01	0.97513E-02	0.1040582E+06
(45)	6P3>0.0	0.56566E+15	0.37210E+00	0.33933E-02	0.3330003E+05
(45)	6P3>1.0	0.56566E+15	0.27907E+00	0.25449E-02	0.3330003E+05
(45)	6P3>2.0	0.56566E+15	0.18605E-01	0.16967E-03	0.3330003E+05

INTERACTIONS -- QUADRUPOLE -

0.10974E+16	0.10572E+05
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## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		65552.0	105019.000	4.771	109836.687	1307.115	4.983

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(45)	3P5P1.0	1.34648E+16	0.62833E-01	0.58495E-02	0.5436555E+04
(45)	3P5P2.0	0.34644E+16	0.10472E+00	0.58498E-02	0.5437145E+04
(45)	3P5P3.0	0.34637E+16	0.14661E+00	0.58476E-02	0.5438328E+04
(45)	4P5P1.0	0.11164E+16	0.93386E+00	0.28014E-01	0.1687194E+05
(45)	4P5P2.0	0.11163E+16	0.15564E+01	0.28009E-01	0.1687479E+05
(45)	4P5P3.0	0.11161E+16	0.21790E+01	0.28004E-01	0.1687764E+05

## 19 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		65351.0	105164.000	4.845	109836.687	1389.127	1380.269

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(45)	3P3P0.0	0.31142E+16	0.40252E-01	0.60626E-02	0.6048505E+04
(45)	3P3P1.0	0.31144E+16	0.12075E+00	0.60629E-02	0.5049141E+04
(45)	3P3P2.0	0.31144E+16	0.20126E+00	0.60630E-02	0.6049141E+04
(45)	4P3P0.0	0.10330E+16	0.56485E+00	0.28220E-01	0.1823466E+05
(45)	4P3P1.0	0.10330E+16	0.16945E+01	0.28219E-01	0.1823466E+05
(45)	4P3P2.0	0.10330E+16	0.28242E+01	0.28220E-01	0.1823466E+05
(45)	5P3P0.0	0.24393E+15	0.37766E+02	0.44555E+00	0.7722006E+05
(45)	5P3P1.0	0.24393E+15	0.11330E+03	0.44554E+00	0.7722006E+05
(45)	5P3P2.0	0.24393E+15	0.19883E+03	0.44555E+00	0.7722006E+05
(45)	6P3P0.0	0.14071E+15	0.11499E+03	0.26086E+00	0.1338687E+06
(45)	6P3P1.0	0.14071E+15	0.34497E+03	0.78255E+00	0.1338687E+06
(45)	6P3P2.0	0.14071E+15	0.57497E+03	0.13043E+01	0.1338687E+06

## 20 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		50500.0	105385.000	4.964	109836.687	1308.125	3.968

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(45)	3P5P1.0	0.35337E+16	0.20379E+00	0.38698E-02	0.5330489E+04
(45)	4P5P1.0	0.11854E+16	0.37645E+01	0.23980E-01	0.1589067E+05

## INTERACTIONS -- QUADRUPOLE -

0.15003E+16	0.59140E+06
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PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(3P)	140553.500
	2	(1D)	160525.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS			
1	(3P) 2P2P0.5	404.00	0.0		
2	(1D) 2P2P0.5	404.00	0.0		
3	(3P) 3S4P0.5	102841.00	102661.00	102406.00	
4	(3P) 3S2P0.5	105057.00	104731.00		
5	(3P) 3P4P0.5	115144.00	115041.00	115918.00	
6	(3P) 3P4D0.5	117392.00	117303.00	117164.00	116988.00
7	(3P) 3P2D1.5	117873.00	117623.00		
8	(3P) 3P2S0.5	118406.00			
9	(3P) 3P4S1.5	118428.00			
10	(3P) 3P2P0.5	119082.00	118937.00		
11	(1D) 3S2D1.5	123926.00	123925.00		
12	(3P) 3D4D0.5	126185.00	126123.00	123038.00	128064.00
13	(3P) 3D4F1.5	128612.00	128525.00	128515.00	129219.00
14	(3P) 5S4P0.5	133009.00	132745.00	132596.00	
15	(3P) 5S2P0.5	133224.00	132999.00		
16	(3P) 4D4D0.5	133614.00	133578.00	133558.00	133545.00
17	(3P) 4D4F1.5	133972.00	133932.00	133923.00	133606.00
18	(1D) 3P2F2.5	137594.00	137603.00		
19	(1D) 3P2D1.5	138700.00	138708.00		

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3S4P2.5	102406.000	1.699	140553.500	22.294	20.7d4
INTERACTIONS -- DIPOLE --							
DESIGNATION			RAA**2	F	# L VAC		
(3P)	3P4P1.5	0.25584E+10	0.21095E+01	0.87344E-01	0.7334066E+04		
(3P)	3P4P2.5	0.25452E+15	0.49221E+01	0.20195E+00	0.7400823E+04		
(3P)	3P4D1.5	0.28072E+10	0.23074E+00	0.10442E-01	0.6710055E+04		
(3P)	3P4D2.5	0.27799E+10	0.20767E+01	0.93057E-01	0.6775984E+04		
(3P)	3P4D3.5	0.27467E+16	0.92296E+01	0.40870E+00	0.6557770E+04		
(3P)	3P4S1.5	0.30180E+10	0.22153E+01	0.10780E+00	0.6241418E+04		

Table 8. Fluorine

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		354P1.5	102331.000	1.699	140553.500	22.294	20.784

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(JP)	3P4P0.5	0.25360E+16	0.29298E+01	0.11978E+00	0.7427762E+04
(JP)	3P4P1.5	0.25100E+16	0.93749E+00	0.38034E-01	0.7485027E+04
(JP)	3P4P2.5	0.24934E+16	0.31642E+01	0.12719E+00	0.7554579E+04
(JP)	3P4D0.5	0.27710E+16	0.57685E+00	0.25770E-01	0.6797633E+04
(JP)	3P4D1.5	0.27554E+16	0.36918E+01	0.16400E+00	0.6836203E+04
(JP)	3P4D2.5	0.27281E+16	0.72683E+01	0.31967E+00	0.6904645E+04
(JP)	3P4S1.5	0.29602E+16	0.22156E+01	0.10595E+00	0.6350414E+04

## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		354P0.5	102341.000	1.699	140553.500	22.294	20.784

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(JP)	3P4P0.5	0.25058E+16	0.11719E+01	0.47343E-01	0.7517098E+04
(JP)	3P4P1.5	0.24864E+16	0.58595E+01	0.23488E+00	0.7575754E+04
(JP)	3P4D0.5	0.27409E+16	0.57685E+01	0.25489E+00	0.6872379E+04
(JP)	3P4D1.5	0.27253E+16	0.57684E+01	0.25344E+00	0.6911805E+04
(JP)	3P4S1.5	0.29360E+16	0.22156E+01	0.10487E+00	0.6415602E+04

## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		352P1.5	104731.000	1.752	140553.500	25.118	23.036

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(JP)	3P2D1.5	0.24755E+16	0.12877E+01	0.51390E-01	0.7609191E+04
(JP)	3P2D2.5	0.24284E+16	0.11584E+02	0.45371E+00	0.7756746E+04
(JP)	3P2S0.5	0.25759E+16	0.25340E+01	0.10523E+00	0.7312613E+04
(JP)	3P2P0.5	0.27032E+16	0.12708E+01	0.55381E-01	0.6968152E+04
(JP)	3P2P1.5	0.26759E+16	0.63539E+01	0.27410E+00	0.7039277E+04

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		352*0.5	105037.000	1.752	140553.500	25.118	23.036

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(JP)	JP201.5	0.24141E+16	0.12877E+02	0.50115E+00	0.7802746E+04
(JP)	JP250.5	0.25145E+16	0.25340E+01	0.10272E+00	0.7491195E+04
(JP)	JP2P0.5	0.26418E+16	0.50630E+01	0.21649E+00	0.7130121E+04
(JP)	JP2P1.5	0.26145E+16	0.25416E+01	0.10713E+00	0.7204609E+04

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		JP4P0.5	116144.000	2.113	140553.500	38.693	26.236

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(JP)	354P0.5	0.25058E+16	0.11719E+01	0.47343E-01	0.7517098E+04
(JP)	354P1.5	0.25360E+16	0.58595E+01	0.11978E+00	0.7427762E+04
(JP)	30400.5	0.22681E+16	0.88106E+01	0.32216E+00	0.8304957E+04
(JP)	30401.5	0.22564E+16	0.88105E+01	0.32050E+00	0.8347941E+04
(JP)	554P0.5	0.31763E+16	0.51849E-01	0.26554E-02	0.5929437E+04
(JP)	554P1.5	0.31270E+16	0.25924E+00	0.13069E-01	0.6023730E+04
(JP)	4J400.5	0.32907E+16	0.63599E+00	0.33740E-01	0.5724098E+04
(JP)	4J401.5	0.32840E+16	0.63599E+00	0.33670E-01	0.5735918E+04

INTERACTIONS -- QUADRUPOLE -

0.42571E+14	0.29942E+03
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## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		3P400.5	117372.000	2.165	140553.500	43.146	34.448

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(JP)	354P0.5	0.27409E+16	0.57685E+01	0.25489E+00	0.6872379E+04
(JP)	354P1.5	0.27710E+16	0.11537E+01	0.25770E-01	0.6737633E+04
(JP)	30400.5	0.20330E+16	0.20340E+01	0.66665E-01	0.9265262E+04
(JP)	30401.5	0.20213E+16	0.20340E+01	0.66283E-01	0.9318793E+04
(JP)	304F1.5	0.21135E+16	0.21261E+02	0.72440E+00	0.8912652E+04
(JP)	534P0.5	0.23417E+16	0.28683E+00	0.13603E-01	0.6403277E+04
(JP)	554P1.5	0.28920E+16	0.57367E-01	0.26746E-02	0.6513383E+04
(JP)	40400.5	0.30557E+16	0.11135E+00	0.54855E-02	0.6164465E+04
(JP)	40401.5	0.30487E+16	0.11136E+00	0.54734E-02	0.6170176E+04
(JP)	404F1.5	0.31231E+16	0.16304E+01	0.82087E-01	0.6031359E+04

## INTERACTIONS -- QUADRUPOLE -

0.42947E+14	0.86870E+03
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## 8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		3P202.5	117623.000	2.192	140553.500	45.652	8.091

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(JP)	352P1.5	0.24264E+16	0.77262E+01	0.45371E+00	0.7756745E+04
(JP)	552P1.5	0.28363E+16	0.36482E+00	0.17034E-01	0.6503641E+04

## INTERACTIONS -- QUADRUPOLE -

0.47091E+14	0.75645E+03
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## 9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		3P201.5	117373.000	2.192	140553.500	45.652	8.091

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(JP)	352P0.5	0.24141E+16	0.64385E+01	0.50115E+00	0.7802745E+04
(JP)	352P1.5	0.24755E+16	0.12877E+01	0.51390E-01	0.7609191E+04
(JP)	552P0.5	0.23916E+16	0.30402E+00	0.14172E-01	0.6514230E+04
(JP)	552P1.5	0.28492E+16	0.60604E-01	0.27929E-02	0.6611133E+04

## 10 - SEQ. NUM.

PR	ES	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P250.5	118400.000	2.225	140553.500	48.882	7.994

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	3S2P0.5	0.25145E+16	0.25340E+01	0.10272E+00	0.7491195E+04
(3P)	3S2P1.5	0.25759E+16	0.50680E+01	0.10523E+00	0.7312613E+04
(3P)	5S2P0.5	0.27912E+16	0.13072E+00	0.58823E-02	0.6748547E+04
(3P)	5S2P1.5	0.27488E+16	0.26145E+00	0.11586E-01	0.6852598E+04

## 11 - SEQ. NUM.

PR	ES	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P431.5	118420.000	2.226	140553.500	48.991	7.003

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	3S4P0.5	0.29360E+16	0.11078E+01	0.10487E+00	0.6415602E+04
(3P)	3S4P1.5	0.29552E+16	0.22156E+01	0.10595E+00	0.6350414E+04
(3P)	3S4P2.5	0.30180E+16	0.33234E+01	0.10700E+00	0.6241418E+04
(3P)	5S4P0.5	0.27466E+16	0.59408E-01	0.26305E-02	0.6858238E+04
(3P)	5S4P1.5	0.26968E+16	0.11881E+00	0.51657E-02	0.6984703E+04
(3P)	5S4P2.5	0.26688E+16	0.17822E+00	0.76679E-02	0.7058156E+04

## 12 - SEQ. NUM.

PR	ES	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		3P2P1.5	118417.000	2.255	140553.500	51.873	8.034

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	3S2P0.5	0.26145E+16	0.12706E+01	0.10713E+00	0.7204609E+04
(3P)	3S2P1.5	0.25759E+16	0.63539E+01	0.27410E+00	0.7039277E+04
(3P)	5S2P0.5	0.26912E+16	0.68222E-01	0.29599E-02	0.6999367E+04
(3P)	5S2P1.5	0.26438E+16	0.34111E+00	0.14566E-01	0.7111363E+04

## INTERACTIONS -- QUADRUPOLE -

0.27313E+14	0.26907E+03
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PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1S)	41449.643

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 3S2S0.5	0.0	
2	(1S) 3P2P0.5	16956.18	16973.38
3	(1S) 4S2S0.5	25739.86	
4	(1S) 3D2D1.5	29172.86	29172.90
5	(1S) 4P2P0.5	30266.86	30272.51
6	(1S) 5S2S0.5	33200.70	
7	(1S) 4D2D1.5	34548.79	34548.75
8	(1S) 4F2F2.5	34588.60	34588.60
9	(1S) 5P2P0.5	35040.27	35042.79
10	(1S) 6S2S0.5	36372.65	
11	(1S) 5D2D1.5	37036.80	37036.78
12	(1S) 5F2F2.5	37057.60	37057.50
13	(1S) 5G2G3.5	37060.20	37050.20
14	(1S) 6P2P0.5	37296.51	37297.76
15	(1S) 7S2S0.5	38012.07	
16	(1S) 6D2D1.5	38387.30	38367.29
17	(1S) 6F2F2.5	38400.10	38400.10
18	(1S) 6H2H4.5	38403.40	38403.40
19	(1S) 7P2P0.5	38540.40	38541.14
20	(1S) 8S2S0.5	38968.35	
21	(1S) 7D2D1.5	39200.96	39200.96
22	(1S) 7F2F2.5	39209.20	39209.20
23	(1S) 8P2P0.5	39298.54	39299.01
24	(1S) 9S2S0.5	39574.51	
25	(1S) 8D2D1.5	39729.00	39729.00
26	(1S) 9P2P0.5	39794.55	39795.00
27	(1S) 10S2S0.5	39983.00	
28	(1S) 9D2D1.5	40090.57	40090.57
29	(1S) 9F2F2.5	40093.20	40093.20
30	(1S) 10P2P0.5	40137.23	40137.23
31	(1S) 11S2S0.5	40273.50	
32	(1S) 10D2D1.5	40349.17	40349.17
33	(1S) 10F2F2.5	40350.90	40350.90
34	(1S) 11P2P0.5	40383.16	40383.16
35	(1S) 12S2S0.5	40482.90	
36	(1S) 11F2F2.5	40539.00	40539.00
37	(1S) 11D2D1.5	40540.35	40540.35
38	(1S) 12P2P0.5	40566.03	40566.03
39	(1S) 13S2S0.5	40644.60	
40	(1S) 12D2D1.5	40685.80	40685.80
41	(1S) 13P2P0.5	40705.68	40705.68
42	(1S) 14S2S0.5	40769.50	



1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		35250.5	0.0	1.627	41449.648	18.833	17.987

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(15)	3P20.5	0.31940E+16	0.59388E+01	0.30530E+00	0.5897551E+04
(15)	3P21.5	0.31972E+16	0.11876E+02	0.01221E+00	0.5891579E+04
(15)	4P20.5	0.57012E+16	0.47745E-01	0.43884E-02	0.3303941E+04
(15)	4P21.5	0.57023E+16	0.95490E-01	0.87733E-02	0.3303327E+04
(15)	5P20.5	0.66004E+16	0.60243E-02	0.64103E-03	0.2853859E+04
(15)	5P21.5	0.66008E+16	0.12049E-01	0.12821E-02	0.2853654E+04
(15)	6P20.5	0.70254E+16	0.16735E-02	0.13754E-03	0.2681215E+04
(15)	6P21.5	0.70250E+16	0.33469E-02	0.37908E-03	0.2681126E+04
(15)	7P20.5	0.72597E+16	0.67399E-03	0.79881E-04	0.2594680E+04
(15)	7P21.5	0.72598E+16	0.13480E-02	0.15776E-03	0.2594530E+04
(15)	8P20.5	0.74025E+16	0.33389E-03	0.39846E-04	0.2544624E+04
(15)	8P21.5	0.74026E+16	0.66777E-03	0.79692E-04	0.2544593E+04
(15)	9P20.5	0.74959E+16	0.18859E-03	0.22790E-04	0.2512907E+04
(15)	9P21.5	0.74960E+16	0.37718E-03	0.45581E-04	0.2512873E+04
(15)	10P20.5	0.75605E+16	0.11951E-03	0.14567E-04	0.2491452E+04
(15)	10P21.5	0.75605E+16	0.23603E-03	0.29134E-04	0.2491452E+04
(15)	11P20.5	0.76068E+16	0.76787E-04	0.96166E-05	0.2476280E+04
(15)	11P21.5	0.76068E+16	0.15357E-03	0.18933E-04	0.2476280E+04
(15)	12P20.5	0.76412E+16	0.54072E-04	0.65610E-05	0.2465116E+04
(15)	12P21.5	0.76412E+16	0.10814E-03	0.13322E-04	0.2465116E+04
(15)	13P20.5	0.76675E+16	0.40874E-04	0.50526E-05	0.2456659E+04
(15)	13P21.5	0.76675E+16	0.81749E-04	0.10105E-04	0.2456659E+04

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2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		3P220.5	16956.184	2.117	41449.643	38.963	38.115

INTERACTIONS -- DIPOLE -  
DESIGNATION

		M	RAA**2	F	M L VAC
(15)	3S2S0.5	0.31940E+16	0.59388E+01	0.30580E+00	0.5697551E+04
(15)	4S2S0.5	0.16545E+16	0.61832E+01	0.15493E+00	0.1138475E+05
(15)	3D2D1.5	0.23012E+16	0.22744E+02	0.84375E+00	0.8185535E+04
(15)	5S2S0.5	0.30599E+16	0.28059E+00	0.13941E+01	0.6155922E+04
(15)	4D2D1.5	0.33138E+16	0.18262E+01	0.97563E-01	0.5684203E+04
(15)	6S2S0.5	0.36574E+16	0.75335E-01	0.44419E-02	0.5150266E+04
(15)	5D2D1.5	0.37825E+16	0.49720E+00	0.30319E-01	0.4979922E+04
(15)	7S2S0.5	0.39662E+16	0.32238E-01	0.20613E-02	0.4749262E+04
(15)	6D2D1.5	0.40369E+16	0.20900E+00	0.13602E-01	0.4655109E+04
(15)	8S2S0.5	0.41463E+16	0.17082E-01	0.11419E-02	0.4542941E+04
(15)	7D2D1.5	0.41901E+16	0.10913E+00	0.73722E-02	0.4495434E+04
(15)	9S2S0.5	0.42605E+16	0.10235E-01	0.70303E-03	0.4421191E+04
(15)	8D2D1.5	0.42896E+16	0.65088E-01	0.45011E-02	0.4391199E+04
(15)	10S2S0.5	0.43374E+16	0.66630E-02	0.46591E-03	0.4342762E+04
(15)	9D2D1.5	0.43577E+16	0.42092E-01	0.29571E-02	0.4322566E+04
(15)	11S2S0.5	0.43922E+16	0.47518E-02	0.33859E-03	0.4288656E+04
(15)	10D2D1.5	0.44064E+16	0.28988E-01	0.20592E-02	0.4274765E+04
(15)	12S2S0.5	0.44316E+16	0.33727E-02	0.24096E-03	0.4250464E+04
(15)	11D2D1.5	0.44424E+16	0.20815E-01	0.14908E-02	0.4240129E+04
(15)	13S2S0.5	0.44621E+16	0.27445E-02	0.19742E-03	0.4221469E+04
(15)	12D2D1.5	0.44698E+16	0.15548E-01	0.11204E-02	0.4214141E+04
(15)	14S2S0.5	0.44856E+16	0.23191E-02	0.15770E-03	0.4199328E+04

INTERACTIONS -- QUADRUPOLE -

0.44736E+16	0.87160E+03
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		3D21.5	16973.379	2.117	41449.649	38.963	38.115

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	L VAC
(15)	35250.5	0.31972E+16	0.59388E+01	0.61221E+00	0.5671578E+04
(15)	45250.5	0.16513E+16	0.41632E+01	0.16450E+00	0.1140709E+05
(15)	30201.5	0.22980E+16	0.22744E+01	0.84257E-01	0.6197070E+04
(15)	30202.5	0.22960E+16	0.20469E+02	0.75831E+00	0.8197039E+04
(15)	55250.5	0.30567E+16	0.26059E+00	0.13827E-01	0.6162445E+04
(15)	40201.5	0.33106E+16	0.18262E+00	0.97468E-02	0.5689766E+04
(15)	40202.5	0.33106E+16	0.16436E+01	0.87721E-01	0.5689777E+04
(15)	65250.5	0.36541E+16	0.75335E-01	0.44390E-02	0.5154832E+04
(15)	50201.5	0.37792E+16	0.49720E-01	0.30293E-02	0.4984191E+04
(15)	50202.5	0.37792E+16	0.44748E+00	0.27263E-01	0.4984199E+04
(15)	75250.5	0.39630E+16	0.32238E-01	0.20576E-02	0.4753145E+04
(15)	60201.5	0.40336E+16	0.20900E-01	0.13591E-02	0.4669855E+04
(15)	60202.5	0.40336E+16	0.18810E+00	0.12232E-01	0.4669859E+04
(15)	85250.5	0.41431E+16	0.17082E-01	0.11410E-02	0.4545492E+04
(15)	70201.5	0.41869E+16	0.10914E-01	0.73605E-03	0.4498914E+04
(15)	70202.5	0.41869E+16	0.98221E-01	0.66298E-02	0.4498914E+04
(15)	95250.5	0.42573E+16	0.10235E-01	0.70249E-03	0.4424555E+04
(15)	80201.5	0.42864E+16	0.65088E-02	0.44378E-03	0.4394515E+04
(15)	80202.5	0.42864E+16	0.58579E-01	0.40480E-02	0.4394516E+04
(15)	105250.5	0.43342E+16	0.66630E-02	0.46557E-03	0.4345003E+04
(15)	90201.5	0.43545E+16	0.42093E-02	0.29549E-03	0.4325781E+04
(15)	90202.5	0.43545E+16	0.37883E-01	0.26594E-02	0.4325781E+04
(15)	115250.5	0.43889E+16	0.47618E-02	0.33334E-03	0.4291820E+04
(15)	100201.5	0.44032E+16	0.26988E-02	0.20577E-03	0.4277930E+04
(15)	100202.5	0.44032E+16	0.26089E-01	0.18519E-02	0.4277930E+04
(15)	125250.5	0.44284E+16	0.33727E-02	0.24078E-03	0.4253594E+04
(15)	110201.5	0.44392E+16	0.20815E-02	0.14897E-03	0.4243223E+04
(15)	110202.5	0.44392E+16	0.18734E-01	0.13407E-02	0.4243223E+04
(15)	135250.5	0.44588E+16	0.27445E-02	0.19728E-03	0.4224535E+04
(15)	120201.5	0.44666E+16	0.15548E-02	0.11196E-03	0.4217195E+04
(15)	120202.5	0.44666E+16	0.13994E-01	0.10077E-02	0.4217195E+04
(15)	145250.5	0.44824E+16	0.23191E-02	0.16758E-03	0.4202363E+04

INTERACTIONS -- QUADRUPOLE -

0.44703E+16	0.60232E+02
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4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(1S)		3D2D1.5	29172.855	2.989	41449.648	123.626	120.066

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	3P2D0.5	0.23012E+16	0.11372E+02	0.84375E+00	0.6185535E+04
(1S)	3D2D1.5	0.22988E+16	0.22744E+01	0.84257E-01	0.8197070E+04
(1S)	4D2D0.5	0.20608E+15	0.29265E+02	0.97225E-01	0.9140569E+05
(1S)	4P2D1.5	0.20714E+15	0.56530E+01	0.19545E-01	0.9093750E+05
(1S)	4F2F2.5	0.10201E+16	0.61213E+02	0.10067E+01	0.1646468E+05
(1S)	5P2D0.5	0.11052E+16	0.78887E-02	0.14056E-03	0.1704329E+05
(1S)	5P2D1.5	0.11057E+16	0.15777E-02	0.23124E-04	0.1703595E+05
(1S)	5F2F2.5	0.14852E+16	0.66583E+01	0.15942E+00	0.1258271E+05
(1S)	6D2D0.5	0.15302E+16	0.10615E-02	0.26198E-04	0.1230973E+05
(1S)	6P2D1.5	0.15304E+16	0.21231E-03	0.52333E-05	0.1230763E+05
(1S)	6F2F2.5	0.17381E+16	0.19792E+01	0.55457E-01	0.1083747E+05
(1S)	7P2D0.5	0.17645E+16	0.27591E-03	0.79624E-05	0.1067516E+05
(1S)	7P2D1.5	0.17647E+16	0.55982E-04	0.15926E-05	0.1067431E+05
(1S)	7F2F2.5	0.18905E+16	0.86773E+00	0.26446E-01	0.9963785E+04
(1S)	8P2D0.5	0.19073E+16	0.10769E-03	0.33113E-05	0.9875875E+04
(1S)	8P2D1.5	0.19074E+16	0.21538E-04	0.66230E-06	0.9875414E+04
(1S)	9P2D0.5	0.20008E+16	0.52142E-04	0.16918E-05	0.9414691E+04
(1S)	9P2D1.5	0.20008E+16	0.10428E-04	0.33638E-06	0.9414293E+04
(1S)	9F2F2.5	0.20570E+16	0.27661E+00	0.91796E-02	0.9157219E+04
(1S)	10D2D0.5	0.20653E+16	0.27584E-04	0.91842E-06	0.9120445E+04
(1S)	10D2D1.5	0.20653E+16	0.55157E-05	0.18368E-06	0.9120445E+04
(1S)	10F2F2.5	0.21056E+16	0.18109E+00	0.61471E-02	0.8946109E+04
(1S)	11P2D0.5	0.21116E+16	0.18431E-04	0.62743E-06	0.8920363E+04
(1S)	11P2D1.5	0.21116E+16	0.36862E-05	0.12549E-06	0.8920363E+04
(1S)	11F2F2.5	0.21410E+16	0.11465E+00	0.39573E-02	0.8796055E+04
(1S)	12D2D0.5	0.21461E+16	0.11971E-04	0.41416E-06	0.8777184E+04
(1S)	12P2D1.5	0.21461E+16	0.23941E-05	0.52832E-07	0.8777184E+04
(1S)	13P2D0.5	0.21724E+16	0.75762E-05	0.25533E-06	0.8670902E+04
(1S)	13P2D1.5	0.21724E+16	0.15152E-05	0.93067E-07	0.8670902E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)	4220.5		30266.879	3.132	41449.645	216.109	213.395

# INTERACTIONS -- DIPOLE - DESIGNATION

			RAA**2	F	# L VAC
(15)	35250.5	0.57012E+16	0.47745E-01	0.43884E-02	0.3303941E+04
(15)	45250.5	0.85273E+15	0.36501E+02	0.47429E+00	0.2208959E+05
(15)	30201.5	0.20508E+15	0.58530E+02	0.97225E-01	0.9140569E+05
(15)	55250.5	0.55263E+15	0.34858E+02	0.31056E+00	0.3408529E+05
(15)	40201.5	0.80656E+15	0.72747E+02	0.94592E+00	0.2335406E+05
(15)	65250.5	0.11501E+16	0.12474E+01	0.23128E-01	0.1637795E+05
(15)	50201.5	0.12752E+16	0.68787E+01	0.14142E+00	0.1477121E+05
(15)	75250.5	0.14569E+16	0.30934E+00	0.72756E-02	0.1291123E+05
(15)	60201.5	0.15296E+16	0.19809E+01	0.48848E-01	0.1231463E+05
(15)	85250.5	0.16391E+16	0.12785E+00	0.33753E-02	0.1149230E+05
(15)	70201.5	0.16829E+16	0.85704E+00	0.23252E-01	0.1119309E+05
(15)	95250.5	0.17532E+16	0.66669E-01	0.18844E-02	0.1074387E+05
(15)	80201.5	0.17823E+16	0.45746E+00	0.13145E-01	0.1056845E+05
(15)	105250.5	0.18302E+16	0.39791E-01	0.11740E-02	0.1029217E+05
(15)	90201.5	0.18504E+16	0.27595E+00	0.82320E-02	0.1017947E+05
(15)	115250.5	0.18849E+16	0.27094E-01	0.82332E-03	0.9993381E+04
(15)	100201.5	0.18992E+16	0.18109E+00	0.55443E-02	0.9918375E+04
(15)	125250.5	0.19243E+16	0.18271E-01	0.55683E-03	0.9788547E+04
(15)	110201.5	0.19352E+16	0.12577E+00	0.39236E-02	0.9733805E+04
(15)	135250.5	0.19548E+16	0.14605E-01	0.45025E-03	0.9635023E+04
(15)	120201.5	0.19626E+16	0.91524E-01	0.28957E-02	0.9597922E+04
(15)	145250.5	0.19783E+16	0.12226E-01	0.38991E-03	0.9521430E+04

# INTERACTIONS -- QUADRUPOLE -

0.25040E+16	0.54143E+05
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PR EE DESIG (1S)	LEVEL 30272.512	N EFF 3.132	S. LIMIT 41449.648	RAA**2 216.109	S. RAA***2 213.395
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INTERACTIONS -- DIPOLE -  
DESIGNATION M

DESIGNATION	M	RAA***2	F	# L VAC
(1S) 35250.5	0.57023E+16	0.47745E-01	0.97793E-02	0.3303327E+04
(1S) 45250.5	0.85379E+15	0.34501E+02	0.94976E+00	0.2205214E+05
(1S) 35251.5	0.20714E+15	0.56530E+01	0.19545E-01	0.9093750E+05
(1S) 35252.5	0.20713E+15	0.52677E+02	0.11727E+00	0.9094137E+05
(1S) 55250.5	0.55157E+15	0.34858E+02	0.30996E+00	0.3415086E+05
(1S) 40251.5	0.60550E+15	0.72747E+01	0.94458E-01	0.2338482E+05
(1S) 40252.5	0.60549E+15	0.65472E+02	0.83020E+00	0.2338502E+05
(1S) 65250.5	0.11491E+16	0.12474E+01	0.23107E-01	0.1539307E+05
(1S) 50251.5	0.12742E+16	0.66788E+00	0.14130E-01	0.1478351E+05
(1S) 50252.5	0.12742E+16	0.61909E+01	0.12717E+00	0.1478355E+05
(1S) 75250.5	0.14579E+16	0.30934E+00	0.72733E-02	0.1292062E+05
(1S) 60251.5	0.15285E+16	0.19809E+00	0.43815E-02	0.1232318E+05
(1S) 60252.5	0.15285E+16	0.17828E+01	0.43933E-01	0.1232320E+05
(1S) 85250.5	0.16360E+16	0.12785E+00	0.33751E-02	0.1149975E+05
(1S) 70251.5	0.16812E+16	0.85704E-01	0.23237E-02	0.1120014E+05
(1S) 70252.5	0.16818E+16	0.77134E+00	0.20913E-01	0.1120015E+05
(1S) 95250.5	0.17522E+16	0.66669E-01	0.19932E-02	0.1075037E+05
(1S) 80251.5	0.17813E+16	0.45746E-01	0.13137E-02	0.1057475E+05
(1S) 80252.5	0.17813E+16	0.41171E+00	0.11923E-01	0.1057475E+05
(1S) 105250.5	0.18291E+16	0.39791E-01	0.11733E-02	0.1029814E+05
(1S) 90251.5	0.18494E+16	0.27595E-01	0.82273E-03	0.1018531E+05
(1S) 90252.5	0.18494E+16	0.24835E+00	0.74046E-02	0.1018531E+05
(1S) 115250.5	0.18830E+16	0.27094E-01	0.92235E-03	0.9999012E+04
(1S) 100251.5	0.18981E+16	0.16109E-01	0.55412E-03	0.9923922E+04
(1S) 100252.5	0.18981E+16	0.16298E+00	0.49871E-02	0.9923922E+04
(1S) 125250.5	0.19233E+16	0.18271E-01	0.56652E-03	0.9793945E+04
(1S) 110251.5	0.19341E+16	0.12577E-01	0.39214E-03	0.9739145E+04
(1S) 110252.5	0.19341E+16	0.11319E+00	0.35293E-02	0.9739145E+04
(1S) 135250.5	0.19537E+16	0.14605E-01	0.45000E-03	0.9641258E+04
(1S) 120251.5	0.19615E+16	0.91524E-02	0.28942E-03	0.9603113E+04
(1S) 120252.5	0.19615E+16	0.82371E-01	0.29048E-02	0.9603113E+04
(1S) 145250.5	0.19773E+16	0.12225E-01	0.38970E-03	0.9525537E+04

INTERACTIONS -- QUADRUPOLE -

0.25051E+16	0.83905E+04
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7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		55250.5	33200.695	3.546	41349.543	448.627	446.457

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(15)	3P2P0.5	0.30599E+16	0.28059E+00	0.13841E-01	0.6155922E+04
(15)	3P2P1.5	0.30507E+16	0.55117E+00	0.13827E-01	0.6162443E+04
(15)	4P2P0.5	0.55263E+15	0.34858E+02	0.31956E+00	0.3408529E+05
(15)	4P2P1.5	0.55157E+15	0.69716E+02	0.30996E+00	0.3415086E+05
(15)	5P2P0.5	0.34651E+15	0.11157E+03	0.62324E+00	0.5436040E+05
(15)	5P2P1.5	0.34699E+15	0.22313E+03	0.12432E+01	0.5428605E+05
(15)	6P2P0.5	0.77151E+15	0.16457E+01	0.20459E-01	0.2441515E+05
(15)	6P2P1.5	0.77174E+15	0.32914E+01	0.40950E-01	0.2440771E+05
(15)	7P2P0.5	0.10058E+16	0.27940E+00	0.45305E-02	0.1872763E+05
(15)	7P2P1.5	0.10060E+16	0.55879E+00	0.90521E-02	0.1872503E+05
(15)	8P2P0.5	0.11486E+16	0.93434E-01	0.17302E-02	0.1639924E+05
(15)	8P2P1.5	0.11487E+16	0.18687E+00	0.34606E-02	0.1539795E+05
(15)	9P2P0.5	0.12421E+16	0.42745E-01	0.85592E-03	0.1510503E+05
(15)	9P2P1.5	0.12421E+16	0.85491E-01	0.17120E-02	0.1510460E+05
(15)	10P2P0.5	0.13066E+16	0.23559E-01	0.49526E-03	0.1441642E+05
(15)	10P2P1.5	0.13066E+16	0.47119E-01	0.99252E-03	0.1441642E+05
(15)	11P2P0.5	0.13529E+16	0.14272E-01	0.31129E-03	0.1392280E+05
(15)	11P2P1.5	0.13529E+16	0.28544E-01	0.62237E-03	0.1392280E+05
(15)	12P2P0.5	0.13874E+16	0.94819E-02	0.21208E-03	0.1357711E+05
(15)	12P2P1.5	0.13874E+16	0.18964E-01	0.42415E-03	0.1357711E+05
(15)	13P2P0.5	0.14137E+16	0.67400E-02	0.15361E-03	0.1332448E+05
(15)	13P2P1.5	0.14137E+16	0.13480E-01	0.30722E-03	0.1332448E+05

B - 117

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OF POOR QUALITY

8 - SEQ. NUM.

PR EE DESIG (15)	LEVEL 40201.5	N EFF 3.987	S. LIMIT 41449.648	RAA**2 496.423	S. RAA***2 486.024
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA***2	F	L VAC	
(15)	3P20.5	0.33138E+16	0.91310E+00	0.97563E-01	0.5684203E+04
(15)	3P21.5	0.33106E+16	0.18262E+00	0.97469E-02	0.5689705E+04
(15)	4P20.5	0.80656E+15	0.36373E+02	0.94592E+00	0.2335406E+05
(15)	4P21.5	0.80550E+15	0.72747E+01	0.94468E-01	0.2334482E+05
(15)	4F22.5	0.74993E+13	0.15236E+03	0.18420E-01	0.2511773E+07
(15)	5P20.5	0.92578E+14	0.12738E+03	0.19012E+00	0.2034669E+06
(15)	5P21.5	0.93052E+14	0.25477E+02	0.39219E-01	0.2024291E+06
(15)	5F2F2.5	0.47257E+15	0.11324E+03	0.86274E+00	0.3985949E+05
(15)	6P20.5	0.51757E+15	0.84543E-01	0.70543E-03	0.3639377E+05
(15)	6P21.5	0.51761E+15	0.16909E-01	0.14115E-03	0.3637722E+05
(15)	6F2F2.5	0.72545E+15	0.15673E+02	0.18564E+00	0.2595517E+05
(15)	7P20.5	0.75188E+15	0.14409E-01	0.17465E-03	0.2505255E+05
(15)	7P21.5	0.75202E+15	0.28817E-02	0.34937E-04	0.2504789E+05
(15)	7F2F2.5	0.67786E+15	0.51470E+01	0.72842E-01	0.2145734E+05
(15)	8P20.5	0.69469E+15	0.45635E-02	0.65822E-04	0.2105374E+05
(15)	8P21.5	0.89478E+15	0.91270E-03	0.13166E-04	0.2105164E+05
(15)	9P20.5	0.98812E+15	0.20038E-02	0.31920E-04	0.1906301E+05
(15)	9P21.5	0.98820E+15	0.40075E-03	0.63845E-05	0.1906137E+05
(15)	9F2F2.5	0.10444E+16	0.12849E+01	0.21634E-01	0.1803619E+05
(15)	10P20.5	0.10527E+16	0.10377E-02	0.17611E-04	0.1789407E+05
(15)	10P21.5	0.10527E+16	0.20754E-03	0.35221E-05	0.1789407E+05
(15)	10F2F2.5	0.10929E+16	0.79029E+00	0.13924E-01	0.1723511E+05
(15)	11P20.5	0.10990E+16	0.64332E-03	0.11398E-04	0.1713980E+05
(15)	11P21.5	0.10990E+16	0.12866E-03	0.22746E-05	0.1713980E+05
(15)	11F2F2.5	0.11283E+16	0.49920E+00	0.90807E-02	0.1659393E+05
(15)	12P20.5	0.11334E+16	0.41528E-03	0.75853E-05	0.1651891E+05
(15)	12P21.5	0.11334E+16	0.83057E-04	0.15177E-05	0.1661891E+05
(15)	13P20.5	0.11597E+16	0.27578E-03	0.51562E-05	0.1624196E+05
(15)	13P21.5	0.11597E+16	0.55157E-04	0.10312E-05	0.1624196E+05

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ORIGINAL PAGE IS  
OF POOR QUALITY



9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		5220.5	35040.270	4.137	41449.648	689.655	684.194

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

(1S)	3S2S0.5	0.66004E+16	0.60243E-02	0.64103E-03	0.2853859E+04
(1S)	4S2S0.5	0.17519E+16	0.44245E+00	0.12496E-01	0.1075221E+05
(1S)	30201.5	0.11052E+16	0.15777E-01	0.14056E-03	0.1704328E+05
(1S)	5S2S0.5	0.34651E+15	0.11157E+03	0.62324E+00	0.5435040E+05
(1S)	40201.5	0.92578E+14	0.25477E+03	0.19012E+00	0.2034669E+06
(1S)	6S2S0.5	0.25097E+15	0.11161E+03	0.45150E+00	0.7505369E+05
(1S)	50201.5	0.37608E+15	0.17400E+03	0.10549E+01	0.5008677E+05
(1S)	7S2S0.5	0.55978E+15	0.35043E+01	0.31625E-01	0.3364959E+05
(1S)	60201.5	0.63046E+15	0.16952E+02	0.17230E+00	0.2987722E+05
(1S)	8S2S0.5	0.73991E+15	0.82230E+00	0.98038E-02	0.2545771E+05
(1S)	70201.5	0.76373E+15	0.49432E+01	0.62457E-01	0.2403444E+05
(1S)	9S2S0.5	0.89409E+15	0.33023E+00	0.45470E-02	0.2205440E+05
(1S)	80201.5	0.83319E+15	0.21575E+01	0.30719E-01	0.2132773E+05
(1S)	10S2S0.5	0.93104E+15	0.17007E+00	0.25526E-02	0.2023173E+05
(1S)	90201.5	0.95130E+15	0.11559E+01	0.17727E-01	0.1930030E+05
(1S)	11S2S0.5	0.98576E+15	0.10584E+00	0.16820E-02	0.1910865E+05
(1S)	100201.5	0.10000E+16	0.70191E+00	0.11316E-01	0.1883629E+05
(1S)	12S2S0.5	0.10252E+16	0.66880E-01	0.11054E-02	0.1837347E+05
(1S)	110201.5	0.10360E+16	0.46225E+00	0.77207E-02	0.1818155E+05
(1S)	13S2S0.5	0.10557E+16	0.51476E-01	0.87606E-03	0.1784334E+05
(1S)	120201.5	0.10634E+16	0.32345E+00	0.55452E-02	0.1771312E+05
(1S)	14S2S0.5	0.10792E+16	0.42014E-01	0.73096E-03	0.1745435E+05

INTERACTIONS -- QUADRUPOLE -

0.34032E+16	0.51962E+06
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10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)	522	1.5	35042.789	4.137	41449.648	689.655	684.192

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	L VAC
(1S)	3S2S0.5	0.66008E+16	0.60243E-02	0.12921E-02	0.2853654E+04
(1S)	4S2S0.5	0.17523E+16	0.44245E+00	0.24999E-01	0.1074930E+05
(1S)	3J2J1.5	0.11057E+16	0.15777E-02	0.28124E-04	0.1703590E+05
(1S)	3D2D2.5	0.11057E+16	0.14200E-01	0.16874E-03	0.1703610E+05
(1S)	5S2S0.5	0.34699E+15	0.11157E+03	0.12432E+01	0.5428605E+05
(1S)	4D2D1.5	0.93052E+14	0.25477E+02	0.38219E-01	0.2024291E+06
(1S)	4D2D2.5	0.93059E+14	0.22929E+03	0.22933E+00	0.2024147E+06
(1S)	6S2S0.5	0.25050E+15	0.11101E+03	0.45074E+00	0.7519587E+05
(1S)	5D2D1.5	0.37560E+15	0.17400E+02	0.10536E+00	0.5015005E+05
(1S)	5D2D2.5	0.37560E+15	0.15660E+03	0.94822E+00	0.5015064E+05
(1S)	7S2S0.5	0.55931E+15	0.35043E+01	0.31598E-01	0.3367814E+05
(1S)	6D2D1.5	0.62999E+15	0.16952E+01	0.17217E-01	0.2989973E+05
(1S)	6D2D2.5	0.62999E+15	0.15256E+02	0.15435E+00	0.2989987E+05
(1S)	8S2S0.5	0.73944E+15	0.82230E+00	0.98025E-02	0.2547405E+05
(1S)	7D2D1.5	0.78326E+15	0.49432E+00	0.62419E-02	0.2404900E+05
(1S)	7D2D2.5	0.78325E+15	0.44489E+01	0.56177E-01	0.2404903E+05
(1S)	9S2S0.5	0.85302E+15	0.33023E+00	0.45445E-02	0.2206666E+05
(1S)	8D2D1.5	0.88272E+15	0.21575E+00	0.30702E-02	0.2133920E+05
(1S)	8D2D2.5	0.88272E+15	0.19417E+01	0.27632E-01	0.2133920E+05
(1S)	10S2S0.5	0.93050E+15	0.17007E+00	0.25513E-02	0.2024205E+05
(1S)	9D2D1.5	0.95083E+15	0.11559E+00	0.17719E-02	0.1981068E+05
(1S)	9D2D2.5	0.95083E+15	0.10403E+01	0.15947E-01	0.1981068E+05
(1S)	11S2S0.5	0.98528E+15	0.10584E+00	0.15912E-02	0.1911786E+05
(1S)	10D2D1.5	0.99954E+15	0.70191E-01	0.11311E-02	0.1884523E+05
(1S)	10D2D2.5	0.99954E+15	0.63172E+00	0.10130E-01	0.1884523E+05
(1S)	12S2S0.5	0.10247E+16	0.66879E-01	0.11049E-02	0.1838198E+05
(1S)	11D2D1.5	0.10355E+16	0.46226E-01	0.77172E-03	0.1818988E+05
(1S)	11D2D2.5	0.10355E+16	0.41603E+00	0.69434E-02	0.1818988E+05
(1S)	13S2S0.5	0.10552E+16	0.51476E-01	0.87567E-03	0.1785130E+05
(1S)	12D2D1.5	0.10629E+16	0.32345E-01	0.55428E-03	0.1772103E+05
(1S)	12D2D2.5	0.10629E+16	0.29111E+00	0.49885E-02	0.1772103E+05
(1S)	14S2S0.5	0.10747E+16	0.42014E-01	0.73063E-03	0.1746203E+05

INTERACTIONS -- QUADRUPOLE -

0.34036E+16 0.69561E+05

11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		55250.5	30372.648	4.648	41449.548	1177.547	1174.579

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(1S)	3P2>0.5	0.36574E+16	0.75335E-01	0.44419E-02	0.5150265E+04
(1S)	3P2>1.5	0.36541E+16	0.15067E+00	0.44330E-02	0.5154832E+04
(1S)	4P2>0.5	0.11501E+16	0.12474E+01	0.23128E-01	0.1637795E+05
(1S)	4P2>1.5	0.11491E+16	0.24948E+01	0.23117E-01	0.1639307E+05
(1S)	5P2>0.5	0.25057E+15	0.11161E+03	0.43150E+00	0.7505369E+05
(1S)	5P2>1.5	0.25050E+15	0.22323E+03	0.45074E+00	0.7519587E+05
(1S)	6P2>0.5	0.17402E+15	0.27309E+03	0.76616E+00	0.1082411E+06
(1S)	6P2>1.5	0.17426E+15	0.54618E+03	0.15344E+01	0.1080948E+06
(1S)	7P2>0.5	0.40833E+15	0.42699E+01	0.28108E-01	0.4613078E+05
(1S)	7P2>1.5	0.40847E+15	0.85398E+01	0.56235E-01	0.4611499E+05
(1S)	8P2>0.5	0.55114E+15	0.73610E+00	0.65581E-02	0.3417762E+05
(1S)	8P2>1.5	0.55122E+15	0.14762E+01	0.13118E-01	0.3417211E+05
(1S)	9P2>0.5	0.64437E+15	0.24872E+00	0.25846E-02	0.2922351E+05
(1S)	9P2>1.5	0.64465E+15	0.49744E+00	0.51693E-02	0.2921967E+05
(1S)	10P2>0.5	0.70912E+15	0.11512E+00	0.13160E-02	0.2656337E+05
(1S)	10P2>1.5	0.70912E+15	0.23024E+00	0.26321E-02	0.2656337E+05
(1S)	11P2>0.5	0.75544E+15	0.62622E-01	0.75256E-03	0.2493447E+05
(1S)	11P2>1.5	0.75544E+15	0.12524E+00	0.15253E-02	0.2493447E+05
(1S)	12P2>0.5	0.78989E+15	0.38593E-01	0.49145E-03	0.2384709E+05
(1S)	12P2>1.5	0.78989E+15	0.77186E-01	0.98290E-03	0.2384709E+05
(1S)	13P2>0.5	0.81619E+15	0.25950E-01	0.34146E-03	0.2307853E+05
(1S)	13P2>1.5	0.81619E+15	0.51900E-01	0.68291E-03	0.2307853E+05

## 12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(1S)		5221.5	37036.805	4.985	41449.648	1333.097	1309.643

## INTERACTIONS -- DIPOLE -

DESIGNATION	#	RAA**2	F	# L VAC
(1S) 3P220.5	0.37825E+16	0.24660E+00	0.30319E-01	0.4979922E+04
(1S) 3P221.5	0.37792E+16	0.49720E-01	0.30293E-02	0.4984191E+04
(1S) 4P220.5	0.12752E+16	0.34394E+01	0.14142E+00	0.1477121E+05
(1S) 4P221.5	0.12742E+16	0.68788E+00	0.14130E-01	0.1478351E+05
(1S) 4F2F2.5	0.46116E+15	0.19740E+01	0.97836E-02	0.4064623E+05
(1S) 5P220.5	0.37608E+15	0.86996E+02	0.10549E+01	0.5008677E+05
(1S) 5P221.5	0.37560E+15	0.17400E+02	0.10536E+00	0.5015005E+05
(1S) 5F2F2.5	0.39174E+13	0.54274E+03	0.34276E-01	0.4808414E+07
(1S) 6P220.5	0.48920E+14	0.35233E+03	0.27786E+00	0.3650492E+06
(1S) 6P221.5	0.49155E+14	0.70455E+02	0.55840E-01	0.3832048E+06
(1S) 6F2F2.5	0.25680E+15	0.19472E+03	0.80612E+00	0.7335156E+05
(1S) 7P220.5	0.23322E+15	0.38487E+00	0.17573E-02	0.6650731E+05
(1S) 7P221.5	0.28336E+15	0.75975E-01	0.35164E-03	0.5647450E+05
(1S) 7F2F2.5	0.40920E+15	0.29361E+02	0.19369E+00	0.4603215E+05
(1S) 8P220.5	0.42603E+15	0.70712E-01	0.48567E-03	0.4421386E+05
(1S) 8P221.5	0.42612E+15	0.14142E-01	0.97154E-04	0.4420462E+05
(1S) 9P220.5	0.51946E+15	0.23523E-01	0.19699E-03	0.3626150E+05
(1S) 9P221.5	0.51955E+15	0.47046E-02	0.39405E-04	0.3625559E+05
(1S) 9F2F2.5	0.57572E+15	0.45553E+01	0.42372E-01	0.3271829E+05
(1S) 10P220.5	0.58401E+15	0.10461E-01	0.98487E-04	0.3225363E+05
(1S) 10P221.5	0.58401E+15	0.20921E-02	0.19698E-04	0.3225363E+05
(1S) 10F2F2.5	0.62426E+15	0.25358E+01	0.25520E-01	0.3017416E+05
(1S) 11P220.5	0.63034E+15	0.57970E-02	0.58939E-04	0.2938325E+05
(1S) 11P221.5	0.63034E+15	0.11594E-02	0.11792E-04	0.2988325E+05
(1S) 11F2F2.5	0.65969E+15	0.15364E+01	0.16340E-01	0.2855352E+05
(1S) 12P220.5	0.66478E+15	0.35024E-02	0.37536E-04	0.2833482E+05
(1S) 12P221.5	0.66478E+15	0.70048E-03	0.75073E-05	0.2833482E+05
(1S) 13P220.5	0.69109E+15	0.22433E-02	0.24994E-04	0.2725631E+05
(1S) 13P221.5	0.69109E+15	0.44866E-03	0.49997E-05	0.2725631E+05

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		6220.5	37296.512	5.139	41049.648	1678.178	1608.551

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	# L VAC
(15)	35250.5	0.70254E+16	0.16735E-02	0.15954E-03
(15)	45250.5	0.21769E+16	0.70915E-01	0.24937E-02
(15)	33201.5	0.15302E+16	0.21231E-02	0.26188E-04
(15)	55250.5	0.77151E+15	0.16457E+01	0.20469E-01
(15)	40201.5	0.51757E+15	0.16909E+00	0.70543E-03
(15)	65250.5	0.17402E+15	0.27309E+03	0.75616E+00
(15)	50201.5	0.48920E+14	0.70465E+03	0.27786E+00
(15)	75250.5	0.13479E+15	0.27183E+03	0.59067E+00
(15)	60201.5	0.20547E+15	0.35265E+03	0.11681E+01
(15)	85250.5	0.31492E+15	0.78131E+01	0.39606E-01
(15)	70201.5	0.35873E+15	0.34310E+02	0.19443E+00
(15)	95250.5	0.42910E+15	0.17565E+01	0.12151E-01
(15)	80201.5	0.45820E+15	0.99900E+01	0.73794E-01
(15)	105250.5	0.50604E+15	0.69041E+00	0.56324E-02
(15)	90201.5	0.52630E+15	0.43498E+01	0.36907E-01
(15)	115250.5	0.55076E+15	0.36898E+00	0.33357E-02
(15)	100201.5	0.57501E+15	0.23315E+01	0.21613E-01
(15)	125250.5	0.60020E+15	0.21121E+00	0.20437E-02
(15)	110201.5	0.61103E+15	0.14150E+01	0.13939E-01
(15)	135250.5	0.63066E+15	0.15277E+00	0.15533E-02
(15)	120201.5	0.63842E+15	0.93465E+00	0.96197E-02
(15)	145250.5	0.65419E+15	0.11951E+00	0.12604E-02

## INTERACTIONS -- QUADRUPOLE -

0.38282E+16	0.29915E+07
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## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		7S2S0.5	38012.074	5.649	41449.648	2560.933	2555.929

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(1S)	3P220.5	0.33602E+16	0.32238E-01	0.20613E-02	0.4749262E+04
(1S)	3P221.5	0.39630E+16	0.64475E-01	0.20595E-02	0.4753145E+04
(1S)	4P220.5	0.14589E+16	0.30934E+00	0.72756E-02	0.1291123E+05
(1S)	4P221.5	0.14579E+16	0.61657E+00	0.72703E-02	0.1232062E+05
(1S)	5P220.5	0.55978E+15	0.35043E+01	0.31625E-01	0.3364959E+05
(1S)	5P221.5	0.55931E+15	0.70086E+01	0.31598E-01	0.3367814E+05
(1S)	6P220.5	0.13479E+15	0.27183E+03	0.59057E+00	0.1397502E+06
(1S)	6P221.5	0.13458E+15	0.54365E+03	0.58934E+00	0.1399947E+06
(1S)	7P220.5	0.99518E+14	0.56498E+03	0.90644E+00	0.1892777E+06
(1S)	7P221.5	0.99658E+14	0.11300E+04	0.13154E+01	0.1890122E+06
(1S)	8P220.5	0.24233E+15	0.90815E+01	0.35479E-01	0.7773237E+05
(1S)	8P221.5	0.24241E+15	0.18164E+02	0.70994E-01	0.7770381E+05
(1S)	9P220.5	0.33576E+15	0.15785E+01	0.55442E-02	0.5610172E+05
(1S)	9P221.5	0.33584E+15	0.31570E+01	0.17093E-01	0.5605755E+05
(1S)	10P220.5	0.40031E+15	0.53533E+00	0.34547E-02	0.4705535E+05
(1S)	10P221.5	0.40031E+15	0.10707E+01	0.69095E-02	0.4705536E+05
(1S)	11P220.5	0.44663E+15	0.24424E+00	0.17580E-02	0.4217477E+05
(1S)	11P221.5	0.44663E+15	0.48847E+00	0.35172E-02	0.4217477E+05
(1S)	12P220.5	0.48108E+15	0.13433E+00	0.10418E-02	0.3915493E+05
(1S)	12P221.5	0.48108E+15	0.26666E+00	0.20836E-02	0.3915493E+05
(1S)	13P220.5	0.50738E+15	0.83432E-01	0.68245E-03	0.3712496E+05
(1S)	13P221.5	0.50738E+15	0.16686E+00	0.13649E-02	0.3712496E+05

## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		6J2D1.5	38387.301	5.985	41449.648	2902.399	2831.485

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	# L VAC	
(15)	3P2D0.5	0.40369E+16	0.10450E+00	0.13602E-01	0.4665109E+04
(15)	3P2D1.5	0.40336E+16	0.20900E-01	0.13591E-02	0.4659855E+04
(15)	4P2D0.5	0.15296E+16	0.99046E+00	0.48348E-01	0.1231463E+05
(15)	4P2D1.5	0.15285E+16	0.19609E+00	0.48315E-02	0.1232318E+05
(15)	4F2F2.5	0.71554E+15	0.22624E+00	0.17399E-02	0.2632480E+05
(15)	5P2D0.5	0.63046E+15	0.84758E+01	0.17230E+00	0.2987722E+05
(15)	5P2D1.5	0.62999E+15	0.16952E+01	0.17217E-01	0.2989973E+05
(15)	5F2F2.5	0.25047E+15	0.93767E+01	0.25241E-01	0.7520494E+05
(15)	6P2D0.5	0.20547E+15	0.17632E+03	0.11631E+01	0.9157675E+05
(15)	6P2D1.5	0.20523E+15	0.35265E+02	0.11553E+00	0.9178187E+05
(15)	6F2F2.5	0.24112E+13	0.13180E+04	0.51233E-01	0.7812023E+07
(15)	7P2D0.5	0.28838E+14	0.77907E+03	0.36220E+00	0.5551773E+06
(15)	7P2D1.5	0.28978E+14	0.15582E+03	0.72792E-01	0.6500265E+06
(15)	7F2F2.5	0.15482E+15	0.31564E+03	0.73779E+00	0.1216695E+06
(15)	8P2D0.5	0.17165E+15	0.11701E+01	0.32390E-02	0.1097407E+06
(15)	8P2D1.5	0.17173E+15	0.23403E+00	0.64794E-03	0.1096839E+06
(15)	9P2D0.5	0.26508E+15	0.22144E+00	0.94631E-03	0.7106056E+05
(15)	9P2D1.5	0.26516E+15	0.44288E-01	0.18932E-03	0.7103787E+05
(15)	9F2F2.5	0.32133E+15	0.16486E+02	0.85404E-01	0.5862014E+05
(15)	10P2D0.5	0.32963E+15	0.73881E-01	0.39251E-03	0.5714515E+05
(15)	10P2D1.5	0.32963E+15	0.14776E-01	0.78521E-04	0.5714515E+05
(15)	10F2F2.5	0.36987E+15	0.77017E+01	0.45924E-01	0.5092693E+05
(15)	11P2D0.5	0.37595E+15	0.34378E-01	0.20836E-03	0.5010373E+05
(15)	11P2D1.5	0.37595E+15	0.68757E-02	0.41573E-04	0.5010373E+05
(15)	11F2F2.5	0.40531E+15	0.42765E+01	0.27943E-01	0.46647489E+05
(15)	12P2D0.5	0.41040E+15	0.18631E-01	0.12327E-03	0.4569829E+05
(15)	12P2D1.5	0.41040E+15	0.37262E-02	0.24653E-04	0.4569829E+05
(15)	13P2D0.5	0.43670E+15	0.11125E-01	0.78321E-04	0.4313359E+05
(15)	13P2D1.5	0.43670E+15	0.22249E-02	0.15664E-04	0.4313359E+05

16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		7220.5	38540.398	6.141	41449.643	3460.153	3444.386

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(1S)	33250.5	0.72597E+16	0.67399E-03	0.78891E-04	0.2594580E+04
(1S)	43250.5	0.24112E+16	0.23011E-01	0.89448E-03	0.7612108E+04
(1S)	30201.5	0.17645E+16	0.55982E-03	0.77624E-05	0.1067516E+05
(1S)	55250.5	0.10058E+16	0.27940E+00	0.45305E-02	0.1472763E+05
(1S)	40201.5	0.75188E+15	0.26817E-01	0.17465E-03	0.2505255E+05
(1S)	65250.5	0.40833E+15	0.42699E+01	0.28108E-01	0.4613073E+05
(1S)	50201.5	0.28322E+15	0.75975E+00	0.17573E-02	0.6650731E+05
(1S)	73250.5	0.99518E+14	0.56498E+03	0.90644E+00	0.1892777E+06
(1S)	60201.5	0.28838E+14	0.15581E+04	0.36220E+00	0.6531779E+06
(1S)	85250.5	0.80611E+14	0.56087E+03	0.72339E+00	0.2336704E+06
(1S)	70201.5	0.12443E+15	0.64014E+03	0.12841E+01	0.1513852E+06
(1S)	95250.5	0.19479E+15	0.15089E+02	0.47385E-01	0.9670119E+05
(1S)	80201.5	0.22369E+15	0.61617E+02	0.22240E+00	0.8413244E+05
(1S)	105250.5	0.27174E+15	0.32674E+01	0.14401E-01	0.6931919E+05
(1S)	90201.5	0.29200E+15	0.17817E+02	0.83671E-01	0.6450897E+05
(1S)	115250.5	0.32646E+15	0.13325E+01	0.70131E-02	0.5770002E+05
(1S)	100201.5	0.34071E+15	0.77225E+01	0.42418E-01	0.5528606E+05
(1S)	125250.5	0.36590E+15	0.65125E+00	0.38416E-02	0.5143005E+05
(1S)	110201.5	0.37672E+15	0.41233E+01	0.25042E-01	0.5000117E+05
(1S)	135250.5	0.39636E+15	0.42683E+00	0.27274E-02	0.4752393E+05
(1S)	120201.5	0.40412E+15	0.25009E+01	0.16293E-01	0.4661130E+05
(1S)	145250.5	0.41988E+15	0.31266E+00	0.21164E-02	0.4486112E+05

INTERACTIONS -- QUADRUPOLE -

0.40625E+16	0.12521E+08
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17 - SEQ. NUM.

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S) 85250.5	38968.352	6.648	41449.648	4906.719	4901.629

INTERACTIONS -- DIPOLE -					
DESIGNATION	M	RAA**2	F	# L VAC	
(1S) 3P2P0.5	0.41463E+16	0.17082E-01	0.11419E-02	0.4542941E+04	
(1S) 3P2P1.5	0.41431E+16	0.34165E-01	0.11410E-02	0.4546492E+04	
(1S) 4P2P0.5	0.16391E+16	0.12785E+00	0.33793E-02	0.1147230E+05	
(1S) 4P2P1.5	0.16380E+16	0.25570E+00	0.33761E-02	0.1149975E+05	
(1S) 5P2P0.5	0.73991E+15	0.82230E+00	0.93068E-02	0.2545771E+05	
(1S) 5P2P1.5	0.73944E+15	0.16446E+01	0.98025E-02	0.2547405E+05	
(1S) 6P2P0.5	0.31492E+15	0.78131E+01	0.39666E-01	0.5981434E+05	
(1S) 6P2P1.5	0.31468E+15	0.15626E+02	0.39637E-01	0.5985909E+05	
(1S) 7P2P0.5	0.80611E+14	0.55087E+03	0.72839E+00	0.2336704E+06	
(1S) 7P2P1.5	0.80472E+14	0.11217E+04	0.72752E+00	0.2340764E+06	
(1S) 8P2P0.5	0.62196E+14	0.10425E+04	0.10453E+01	0.3028582E+06	
(1S) 8P2P1.5	0.62285E+14	0.20850E+04	0.20936E+01	0.3024252E+06	
(1S) 9P2P0.5	0.15563E+15	0.17042E+02	0.42757E-01	0.1210361E+06	
(1S) 9P2P1.5	0.15571E+15	0.34084E+02	0.85561E-01	0.1209704E+06	
(1S) 10P2P0.5	0.22018E+15	0.29804E+01	0.10579E-01	0.8555200E+05	
(1S) 10P2P1.5	0.22018E+15	0.59608E+01	0.21158E-01	0.8555200E+05	
(1S) 11P2P0.5	0.26650E+15	0.99758E+00	0.42860E-02	0.7068094E+05	
(1S) 11P2P1.5	0.26650E+15	0.19952E+01	0.85719E-02	0.7058094E+05	
(1S) 12P2P0.5	0.30095E+15	0.45856E+00	0.22248E-02	0.6259077E+05	
(1S) 12P2P1.5	0.30095E+15	0.91712E+00	0.44496E-02	0.6259077E+05	
(1S) 13P2P0.5	0.32725E+15	0.25353E+00	0.13375E-02	0.5755965E+05	
(1S) 13P2P1.5	0.32725E+15	0.50705E+00	0.26751E-02	0.5755965E+05	

18 - SEQ. NUM.

PR EE DESIG (1S)	LEVEL 70201.5	N EFF 6.984	S. LIMIT 41449.648	RAA**2 5532.820	S. RAA**2 5009.578
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INTERACTIONS -- DIPOLE -  
DESIGNATION

	W	RAA**2	F	# L VAC
(1S) 3P20.5	0.41901E+16	0.54567E-01	0.73722E-02	0.4495434E+04
(1S) 3P21.5	0.41869E+16	0.10914E-01	0.73655E-03	0.4496914E+04
(1S) 4P20.5	0.16829E+16	0.42852E+00	0.23252E-01	0.1119309E+05
(1S) 4P21.5	0.16818E+16	0.85704E-01	0.23237E-02	0.1120014E+05
(1S) 4F2F2.5	0.66381E+15	0.66711E-01	0.62292E-03	0.2168085E+05
(1S) 5P20.5	0.78373E+15	0.24716E+01	0.62457E-01	0.2403444E+05
(1S) 5P21.5	0.78326E+15	0.49432E+00	0.62419E-02	0.2404900E+05
(1S) 5F2=2.5	0.40373E+15	0.10995E+01	0.47710E-02	0.4665564E+05
(1S) 6P20.5	0.35873E+15	0.17155E+02	0.19843E+00	0.5250851E+05
(1S) 6P21.5	0.35850E+15	0.34310E+01	0.19830E-01	0.5254300E+05
(1S) 6F2F2.5	0.15085E+15	0.27600E+02	0.44748E-01	0.1248652E+06
(1S) 7P20.5	0.12443E+15	0.32007E+03	0.12841E+01	0.1513852E+06
(1S) 7P21.5	0.12429E+15	0.64014E+02	0.12826E+00	0.1515555E+06
(1S) 7F2F2.5	0.15511E+13	0.26552E+04	0.66396E-01	0.1214421E+08
(1S) 8P20.5	0.18380E+14	0.14995E+04	0.44431E+00	0.1024861E+07
(1S) 8P21.5	0.18469E+14	0.29990E+03	0.89293E-01	0.1019920E+07
(1S) 9P20.5	0.11181E+15	0.28053E+01	0.53568E-02	0.1684676E+06
(1S) 9P21.5	0.11190E+15	0.56107E+00	0.10121E-02	0.1683402E+06
(1S) 9F2F2.5	0.16807E+15	0.75910E+02	0.20557E+00	0.1120781E+06
(1S) 10P20.5	0.17536E+15	0.53066E+00	0.15038E-02	0.1058072E+06
(1S) 10P21.5	0.17536E+15	0.10613E+00	0.30175E-03	0.1058072E+06
(1S) 10F2=2.5	0.21661E+15	0.25575E+02	0.89310E-01	0.8695150E+05
(1S) 11P20.5	0.22268E+15	0.18370E+00	0.65949E-03	0.6456837E+05
(1S) 11P21.5	0.22268E+15	0.36741E-01	0.13190E-03	0.8458837E+05
(1S) 11F2F2.5	0.25204E+15	0.12098E+02	0.49155E-01	0.7473644E+05
(1S) 12P20.5	0.25713E+15	0.83763E-01	0.34722E-03	0.7325650E+05
(1S) 12P21.5	0.25713E+15	0.16753E-01	0.69445E-04	0.7325650E+05
(1S) 13P20.5	0.28344E+15	0.44821E-01	0.20490E-03	0.6645775E+05
(1S) 13P21.5	0.28344E+15	0.89642E-02	0.40961E-04	0.6645775E+05

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(15)		8220.5	39290.539	7.141	01449.645	6373.578	6344.832

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(15)	35250.5	0.74025E+16	0.33389E-03	0.37946E-04	0.2544624E+04
(15)	45250.5	0.25540E+16	0.10319E-01	0.42437E-03	0.7375345E+04
(15)	30201.5	0.19073E+16	0.21536E-03	0.33113E-05	0.9875875E+04
(15)	55250.5	0.11486E+16	0.93634E-01	0.17302E-02	0.1639924E+05
(15)	40201.5	0.59469E+15	0.91270E-02	0.65822E-04	0.2105374E+05
(15)	65250.5	0.55114E+15	0.73810E+00	0.65581E-02	0.3417762E+05
(15)	50201.5	0.42603E+15	0.14142E+00	0.48557E-03	0.4421386E+05
(15)	75250.5	0.24233E+15	0.90818E+01	0.35479E-01	0.7773237E+05
(15)	60201.5	0.17165E+15	0.23403E+01	0.32390E-02	0.1097407E+06
(15)	85250.5	0.62196E+14	0.10425E+04	0.10453E+01	0.3028582E+06
(15)	70201.5	0.18300E+14	0.29990E+04	0.44431E+00	0.1024861E+07
(15)	95250.5	0.51984E+14	0.10341E+04	0.86665E+00	0.3623547E+06
(15)	80201.5	0.81084E+14	0.10697E+04	0.13993E+01	0.2323091E+06
(15)	105250.5	0.12893E+15	0.26466E+02	0.55010E-01	0.1461004E+06
(15)	90201.5	0.14919E+15	0.10199E+03	0.24531E+00	0.1262576E+06
(15)	115250.5	0.19365E+15	0.58884E+01	0.17434E-01	0.1025682E+06
(15)	100201.5	0.19790E+15	0.29238E+02	0.93282E-01	0.9518069E+05
(15)	125250.5	0.22309E+15	0.21792E+01	0.78375E-02	0.8443381E+05
(15)	110201.5	0.23391E+15	0.12591E+02	0.47490E-01	0.8052744E+05
(15)	105250.5	0.25355E+15	0.12161E+01	0.49710E-02	0.7429075E+05
(15)	120201.5	0.26131E+15	0.66979E+01	0.20217E-01	0.7208444E+05
(15)	145250.5	0.27708E+15	0.80500E+00	0.35959E-02	0.6798275E+05

INTERACTIONS -- QUADRUPOLE -

0.42053E+16	0.42077E+08
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PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(15)		8J2D1.5	39729.000	7.984	41449.648	9616.105	4803.418

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(15)	3P2D0.5	0.42896E+16	0.32544E-01	0.45011E-02	0.4391199E+04
(15)	3P2D1.5	0.42864E+16	0.65088E-02	0.44978E-03	0.4394515E+04
(15)	4P2D0.5	0.17823E+16	0.22873E+00	0.13145E-01	0.1056845E+05
(15)	4P2D1.5	0.17813E+16	0.45746E-01	0.13137E-02	0.1057475E+05
(15)	4F2F2.5	0.96827E+15	0.28704E-01	0.29871E-03	0.1945374E+05
(15)	5P2D0.5	0.88319E+15	0.10787E+01	0.30719E-01	0.2132773E+05
(15)	5P2D1.5	0.88272E+15	0.21575E+00	0.30702E-02	0.2133920E+05
(15)	5F2F2.5	0.50320E+15	0.32300E+00	0.17468E-02	0.3743357E+05
(15)	6P2D0.5	0.45820E+15	0.49950E+01	0.73794E-01	0.4111016E+05
(15)	6P2D1.5	0.45796E+15	0.99900E+00	0.73756E-02	0.4113130E+05
(15)	6F2F2.5	0.25032E+15	0.32457E+01	0.87321E-02	0.7525025E+05
(15)	7P2D0.5	0.22389E+15	0.30809E+02	0.22240E+00	0.8413244E+05
(15)	7P2D1.5	0.22375E+15	0.61618E+01	0.22227E-01	0.8418500E+05
(15)	7F2F2.5	0.97912E+14	0.62979E+02	0.66274E-01	0.1923814E+06
(15)	8P2D0.5	0.81084E+14	0.53485E+03	0.13983E+01	0.2323091E+06
(15)	8P2D1.5	0.80995E+14	0.10697E+03	0.13958E+00	0.2325644E+06
(15)	9P2D0.5	0.12347E+14	0.26249E+04	0.52252E+00	0.1525534E+07
(15)	9P2D1.5	0.12432E+14	0.52499E+03	0.10522E+00	0.1515151E+07
(15)	9F2F2.5	0.68602E+14	0.74031E+03	0.91876E+00	0.2745749E+06
(15)	10P2D0.5	0.76896E+14	0.55036E+01	0.71947E-02	0.2449596E+06
(15)	10P2D1.5	0.76896E+14	0.11607E+01	0.14389E-02	0.2449596E+06
(15)	10F2F2.5	0.11714E+15	0.11240E+03	0.21229E+00	0.1607979E+06
(15)	11P2D0.5	0.12322E+15	0.11336E+01	0.22518E-02	0.1528677E+06
(15)	11P2D1.5	0.12322E+15	0.22671E+00	0.45037E-03	0.1528677E+06
(15)	11F2F2.5	0.15258E+15	0.38826E+02	0.95502E-01	0.1234567E+06
(15)	12P2D0.5	0.15767E+15	0.38499E+00	0.97857E-03	0.1194698E+06
(15)	12P2D1.5	0.15767E+15	0.76997E-01	0.19571E-03	0.1194698E+06
(15)	13P2D0.5	0.18397E+15	0.17337E+00	0.51419E-03	0.1023877E+06
(15)	13P2D1.5	0.18397E+15	0.34673E-01	0.10284E-03	0.1023877E+06

21 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		9220.5	39794.551	8.141	41449.648	10816.598	10770.125

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	# L VAC
(15)	3S2S0.5	0.74959E+16	0.18859E-03	0.22790E-04	0.2512907E+04
(15)	4S2S0.5	0.26474E+16	0.55515E-02	0.23694E-03	0.7115057E+04
(15)	3D2D1.5	0.20008E+16	0.10428E-03	0.16818E-05	0.9414691E+04
(15)	5S2S0.5	0.12421E+16	0.42745E-01	0.95572E-03	0.1515563E+05
(15)	4D2D1.5	0.98812E+15	0.40075E-02	0.31920E-04	0.1906301E+05
(15)	6S2S0.5	0.64457E+15	0.24672E+00	0.25846E-02	0.2922351E+05
(15)	5D2D1.5	0.51946E+15	0.47046E-01	0.19699E-03	0.3625150E+05
(15)	7S2S0.5	0.33576E+15	0.15785E+01	0.85442E-02	0.5610172E+05
(15)	6D2D1.5	0.26506E+15	0.44288E+00	0.94631E-03	0.7106050E+05
(15)	8S2S0.5	0.15563E+15	0.17042E+02	0.42757E-01	0.1210361E+06
(15)	7D2D1.5	0.11181E+15	0.56107E+01	0.50558E-02	0.1684676E+06
(15)	9S2S0.5	0.41448E+14	0.17701E+04	0.11827E+01	0.4544647E+06
(15)	8D2D1.5	0.12347E+14	0.52499E+04	0.52252E+00	0.1525534E+07
(15)	10S2S0.5	0.35497E+14	0.17546E+04	0.10041E+01	0.5306469E+06
(15)	9D2D1.5	0.55760E+14	0.16872E+04	0.15167E+01	0.3378155E+06
(15)	11S2S0.5	0.90217E+14	0.44819E+02	0.65186E-01	0.2087904E+06
(15)	10D2D1.5	0.10447E+15	0.15886E+03	0.26756E+00	0.1803032E+06
(15)	12S2S0.5	0.12966E+15	0.91715E+01	0.19171E-01	0.1452754E+06
(15)	11D2D1.5	0.14048E+15	0.45155E+02	0.10227E+00	0.1340841E+06
(15)	13S2S0.5	0.16012E+15	0.38465E+01	0.99293E-02	0.1176400E+06
(15)	12D2D1.5	0.16788E+15	0.19322E+02	0.52295E-01	0.1122019E+06
(15)	14S2S0.5	0.18365E+15	0.21649E+01	0.64094E-02	0.1025694E+06

INTERACTIONS -- QUADRUPOLE -

0.42987E+16	0.12037E+09
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## MAGNESIUM ---- 12 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	61669.141

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2S) 3P3P0.0	21850.00	21870.00	21911.00
2	(2S) 3P1P1.0	35051.00		
3	(2S) 4S3S1.0	41197.00		
4	(2S) 4S1S0.0	43503.00		
5	(2S) 3D1D2.0	46403.00		
6	(2S) 4P3P0.0	47847.00	47847.00	47851.00
7	(2S) 3D3D1.0	47957.00	47957.00	47957.00
8	(2S) 4P1P1.0	49346.00		
9	(2S) 5S3S1.0	51872.00		
10	(2S) 5S1S0.0	52556.00		
11	(2S) 4D1D2.0	53134.00		
12	(2S) 4D3D1.0	54192.00	54192.00	54192.00
13	(2S) 5P3P0.0	54252.00	54252.00	54252.00
14	(2S) 4F3F2.0	54676.00	54576.00	54676.00
15	(2S) 4F1F3.0	54676.00		
16	(2S) 5P1P1.0	54699.00		
17	(2S) 6S3S1.0	55891.00		
18	(2S) 6S1S0.0	56167.00		
19	(2S) 5D1D2.0	56308.00		
20	(2S) 5D3D1.0	56968.00	56958.00	56968.00
21	(2S) 6P3P0.0	57018.00	57018.00	57020.00
22	(2S) 5F3F2.0	57204.00	57204.00	57204.00
23	(2S) 5F1F3.0	57204.00		
24	(2S) 7S3S1.0	57853.00		
25	(2S) 7S1S0.0	58009.00		
26	(2S) 6D1D2.0	58023.00		
27	(2S) 6D3D1.0	58442.00	58442.00	58442.00
28	(2S) 7P3P0.0	58478.00	58478.00	58478.00
29	(2S) 6F3F2.0	58575.00	58575.00	58575.00
30	(2S) 6F1F3.0	58575.00		
31	(2S) 8S3S1.0	58962.00		
32	(2S) 7D1D2.0	59041.00		
33	(2S) 7D3D1.0	59317.00	59317.00	59317.00
34	(2S) 7F3F2.0	59400.00	59400.00	59400.00
35	(2S) 7F1F3.0	59400.00		
36	(2S) 9S3S1.0	59648.00		
37	(2S) 8D1D2.0	59690.00		
38	(2S) 8D3D1.0	59880.00	59880.00	59880.00
39	(2S) 8F3F2.0	59935.00	59935.00	59935.00
40	(2S) 8F1F3.0	59935.00		
41	(2S) 10S3S1.0	60103.00		
42	(2S) 9D1D2.0	60127.00		
43	(2S) 9D3D1.0	60263.00	60263.00	60263.00
44	(2S) 9F3F2.0	60301.00	60301.00	60301.00
45	(2S) 9F1F3.0	60301.00		

Table 10. Magnesium

ORIGINAL PAGE IS  
OF POOR QUALITY

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
46	(2S)11S3S1.0	60420.00		
47	(2S)10D1D2.0	60435.00		
48	(2S)10D3D1.0	60534.00	60534.00	60534.00
49	(2S)10F3F2.0	60562.00	60552.00	60562.00
50	(2S)10F1F3.0	60562.00		
51	(2S)12S3S1.0	60649.00		
52	(2S)11D1D2.0	60658.00		
53	(2S)11D3D1.0	60734.00	60734.00	60734.00
54	(2S)11F3F2.0	60755.00	60755.00	60755.00
55	(2S)11F1F3.0	60755.00		
56	(2S)13S3S1.0	60820.00		
57	(2S)12D1D2.0	60826.00		
58	(2S)12D3D1.0	60884.00	60334.00	60884.00
59	(2S)12F3F2.0	60902.00	60902.00	60902.00
60	(2S)12F1F3.0	60902.00		
61	(2S)14S3S1.0	60952.00		
62	(2S)13D1D2.0	60955.00		
63	(2S)13D3D1.0	61002.00	61002.00	61002.00
64	(2S)13F1F3.0	61016.00		
65	(2S)14D3D1.0	61094.00	61094.00	61094.00
66	(2S)14F1F3.0	61106.00		

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		3P3P0.0	21850.000	1.560	61569.141	11.985	9.023

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA***2	F	# L VAC	
(2S)	4S3S1.0	0.36443E+16	0.14301E+01	0.84020E-01	0.5168758E+04
(2S)	30301.0	0.49170E+16	0.57628E+01	0.45587E+00	0.3830390E+04
(2S)	5S3S1.0	0.56551E+16	0.92914E-01	0.84708E-02	0.3330891E+04
(2S)	40301.0	0.60921E+16	0.95377E+00	0.93673E-01	0.3091955E+04
(2S)	6S3S1.0	0.64121E+16	0.27930E-01	0.28872E-02	0.2937634E+04
(2S)	50301.0	0.66150E+16	0.32994E+00	0.35185E-01	0.2847542E+04
(2S)	7S3S1.0	0.67817E+16	0.12582E-01	0.13756E-02	0.2777546E+04
(2S)	60301.0	0.68927E+16	0.15398E+00	0.17111E-01	0.2732838E+04
(2S)	8S3S1.0	0.69906E+16	0.68543E-02	0.77247E-03	0.2694546E+04
(2S)	70301.0	0.70575E+16	0.84484E-01	0.96122E-02	0.2669015E+04
(2S)	9S3S1.0	0.71198E+16	0.42013E-02	0.48223E-03	0.2645643E+04
(2S)	80301.0	0.71635E+16	0.51827E-01	0.59853E-02	0.2629503E+04
(2S)	10S3S1.0	0.72055E+16	0.27734E-02	0.32217E-03	0.2614174E+04
(2S)	90301.0	0.72357E+16	0.34355E-01	0.40075E-02	0.2603285E+04
(2S)	11S3S1.0	0.72652E+16	0.19326E-02	0.22636E-03	0.2592683E+04
(2S)	100301.0	0.72867E+16	0.23841E-01	0.27771E-02	0.2585045E+04
(2S)	12S3S1.0	0.73084E+16	0.14126E-02	0.16644E-03	0.2577386E+04
(2S)	110301.0	0.73244E+16	0.17104E-01	0.20196E-02	0.2571752E+04
(2S)	13S3S1.0	0.73406E+16	0.10711E-02	0.12575E-03	0.2566076E+04
(2S)	120301.0	0.73526E+16	0.12182E-01	0.14440E-02	0.2561669E+04
(2S)	14S3S1.0	0.73655E+16	0.82427E-03	0.97875E-04	0.2557414E+04
(2S)	130301.0	0.73749E+16	0.94489E-02	0.11234E-02	0.2554148E+04
(2S)	140301.0	0.73922E+16	0.69603E-02	0.82948E-03	0.2548160E+04



PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3P32.0	21911.000	1.660	61569.141	11.985	9.023

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	# L VAC
(2S)	453S1.0	0.36328E+16	0.14301E+01	0.83755E-01	0.5165105E+04
(2S)	3D3D1.0	0.49062E+16	0.57629E-01	0.45581E-02	0.3892361E+04
(2S)	3D3D2.0	0.49062E+16	0.66442E+00	0.68371E-01	0.3839361E+04
(2S)	3D3D3.0	0.49062E+16	0.48408E+01	0.38298E+00	0.3839361E+04
(2S)	553S1.0	0.56436E+16	0.92913E-01	0.84535E-02	0.3337672E+04
(2S)	4D3D1.0	0.60806E+16	0.95377E-02	0.93497E-03	0.3097797E+04
(2S)	4D3D2.0	0.60806E+16	0.14306E+00	0.14024E-01	0.3097797E+04
(2S)	4D3D3.0	0.60806E+16	0.80117E+00	0.78537E-01	0.3097797E+04
(2S)	6S3S1.0	0.64006E+16	0.27930E-01	0.28320E-02	0.2942907E+04
(2S)	5D3D1.0	0.66035E+16	0.32994E-02	0.35125E-03	0.2852497E+04
(2S)	5D3D2.0	0.66035E+16	0.49490E-01	0.52686E-02	0.2852497E+04
(2S)	5D3D3.0	0.66035E+16	0.27715E+00	0.29504E-01	0.2852497E+04
(2S)	7S3S1.0	0.67702E+16	0.12582E-01	0.13733E-02	0.2782200E+04
(2S)	6D3D1.0	0.68812E+16	0.15398E-02	0.17082E-03	0.2737401E+04
(2S)	6D3D2.0	0.68812E+16	0.23097E-01	0.25623E-02	0.2737401E+04
(2S)	6D3D3.0	0.68812E+16	0.12935E+00	0.14349E-01	0.2737401E+04
(2S)	8S3S1.0	0.69791E+16	0.68543E-02	0.77120E-03	0.2698982E+04
(2S)	7D3D1.0	0.70460E+16	0.84484E-03	0.95967E-04	0.2673368E+04
(2S)	7D3D2.0	0.70460E+16	0.12672E-01	0.14395E-02	0.2673368E+04
(2S)	7D3D3.0	0.70460E+16	0.70966E-01	0.30611E-02	0.2673368E+04
(2S)	9S3S1.0	0.71083E+16	0.42012E-02	0.48145E-03	0.2649919E+04
(2S)	8D3D1.0	0.71520E+16	0.51627E-03	0.59757E-04	0.2633727E+04
(2S)	8D3D2.0	0.71520E+16	0.77739E-02	0.89634E-03	0.2633727E+04
(2S)	8D3D3.0	0.71520E+16	0.43534E-01	0.50155E-02	0.2633727E+04
(2S)	10S3S1.0	0.71940E+16	0.27734E-02	0.32165E-03	0.2618349E+04
(2S)	9D3D1.0	0.72242E+16	0.34355E-03	0.40011E-04	0.2607426E+04
(2S)	9D3D2.0	0.72242E+16	0.51532E-02	0.60016E-03	0.2607426E+04
(2S)	9D3D3.0	0.72242E+16	0.28858E-01	0.33009E-02	0.2607426E+04
(2S)	11S3S1.0	0.72538E+16	0.19326E-02	0.22600E-03	0.2596795E+04
(2S)	10D3D1.0	0.72752E+16	0.23641E-03	0.27727E-04	0.2589131E+04
(2S)	10D3D2.0	0.72752E+16	0.35450E-02	0.41591E-03	0.2589131E+04
(2S)	10D3D3.0	0.72752E+16	0.19658E-01	0.23291E-02	0.2589131E+04
(2S)	12S3S1.0	0.72969E+16	0.14126E-02	0.16617E-03	0.2581444E+04
(2S)	11D3D1.0	0.73129E+16	0.17104E-03	0.20155E-04	0.2575792E+04
(2S)	11D3D2.0	0.73129E+16	0.25650E-02	0.30247E-03	0.2575792E+04
(2S)	11D3D3.0	0.73129E+16	0.14367E-01	0.16938E-02	0.2575792E+04
(2S)	13S3S1.0	0.73291E+16	0.10711E-02	0.12655E-03	0.2570099E+04
(2S)	12D3D1.0	0.73412E+16	0.12182E-03	0.14418E-04	0.2565879E+04
(2S)	12D3D2.0	0.73412E+16	0.18273E-02	0.21626E-03	0.2565879E+04
(2S)	12D3D3.0	0.73412E+16	0.10233E-01	0.12111E-02	0.2565879E+04
(2S)	14S3S1.0	0.73540E+16	0.82427E-03	0.97722E-04	0.2561410E+04
(2S)	13D3D1.0	0.73634E+16	0.94469E-04	0.11217E-04	0.2558134E+04
(2S)	13D3D2.0	0.73634E+16	0.14173E-02	0.16825E-03	0.2558134E+04
(2S)	13D3D3.0	0.73634E+16	0.79370E-02	0.94219E-03	0.2558134E+04
(2S)	14D3D1.0	0.73807E+16	0.69604E-04	0.82820E-05	0.2552127E+04
(2S)	14D3D2.0	0.73807E+16	0.10440E-02	0.12423E-03	0.2552127E+04
(2S)	14D3D3.0	0.73807E+16	0.58467E-02	0.69568E-03	0.2552127E+04

INTERACTIONS -- QUADRUPOLE --

0.68879E+16	0.12652E+03
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## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		3P1P1.0	35051.000	2.030	61569.141	32.144	31.073

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	45150.0	0.15921E+16	0.64550E+01	0.16568E+00	0.1183152E+05
(25)	30102.0	0.21383E+16	0.23541E+02	0.51154E+00	0.6809020E+04
(25)	55150.0	0.32973E+16	0.16979E+00	0.90255E-02	0.5712652E+04
(25)	40102.0	0.34062E+16	0.25297E-01	0.13891E-02	0.5530055E+04
(25)	65150.0	0.39813E+16	0.42326E-01	0.27167E-02	0.4731262E+04
(25)	50102.0	0.40041E+16	0.20605E+00	0.13301E-01	0.4704332E+04
(25)	75150.0	0.43245E+16	0.17561E-01	0.12243E-02	0.4355777E+04
(25)	60102.0	0.43271E+16	0.18047E+00	0.12590E-01	0.4353125E+04
(25)	70102.0	0.45189E+16	0.13109E+00	0.95500E-02	0.4168402E+04
(25)	80102.0	0.46411E+16	0.93159E-01	0.69703E-02	0.4058606E+04
(25)	90102.0	0.47234E+16	0.67382E-01	0.51311E-02	0.3937877E+04
(25)	100102.0	0.47815E+16	0.49503E-01	0.38159E-02	0.3939489E+04
(25)	110102.0	0.48235E+16	0.38666E-01	0.30083E-02	0.3905182E+04
(25)	120102.0	0.48551E+16	0.30581E-01	0.23937E-02	0.3879728E+04
(25)	130102.0	0.48794E+16	0.24965E-01	0.19638E-02	0.3860407E+04

## INTERACTIONS -- QUADRUPOLE -

0.37010E+16	0.53424E+02
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## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4S3S1.0	41197.000	2.315	61669.141	74.419	69.126

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	3P3P0.0	0.36443E+16	0.47670E+00	0.34020E-01	0.5158758E+04
(25)	3P3P1.0	0.36405E+16	0.14301E+01	0.83931E-01	0.5174105E+04
(25)	3P3P2.0	0.36328E+16	0.23835E+01	0.83755E-01	0.5185105E+04
(25)	4P3P0.0	0.12526E+16	0.70434E+01	0.14223E+00	0.1503759E+05
(25)	4P3P1.0	0.12526E+16	0.21129E+02	0.42668E+00	0.1503759E+05
(25)	4P3P2.0	0.12534E+16	0.35216E+02	0.71158E+00	0.1502855E+05
(25)	5P3P0.0	0.24591E+16	0.12547E+00	0.49742E-02	0.7659898E+04
(25)	5P3P1.0	0.24591E+16	0.37640E+00	0.14922E-01	0.7659898E+04
(25)	5P3P2.0	0.24591E+16	0.62735E+00	0.24871E-01	0.7659898E+04
(25)	6P3P0.0	0.29801E+16	0.25704E-01	0.12349E-02	0.6320711E+04
(25)	6P3P1.0	0.29801E+16	0.77110E-01	0.37046E-02	0.6320711E+04
(25)	6P3P2.0	0.29805E+16	0.12852E+00	0.61753E-02	0.6319910E+04
(25)	7P3P0.0	0.32551E+16	0.97365E-02	0.51135E-03	0.5785699E+04
(25)	7P3P1.0	0.32551E+16	0.29215E-01	0.15331E-02	0.5786699E+04
(25)	7P3P2.0	0.32551E+16	0.48692E-01	0.25552E-02	0.5786699E+04

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		4S1S0.0	43503.000	2.457	61559.141	94.099	97.063

INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	# L VAC
(2S) 3P1>1.0	0.15921E+16	0.19365E+02	0.16568E+00	0.1183152E+05
(2S) 4P1>1.0	0.11006E+16	0.76522E+02	0.13578E+01	0.1711449E+05
(2S) 5P1>1.0	0.21089E+16	0.11759E+01	0.39979E-01	0.8931758E+04

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3D1D2.0	46403.000	2.680	61569.141	67.583	64.826

INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	# L VAC
(2S) 3P1>1.0	0.21383E+16	0.14125E+02	0.81154E+00	0.8809020E+04
(2S) 4P1>1.0	0.55436E+15	0.14659E+02	0.13101E+00	0.3397693E+05
(2S) 4F1>3.0	0.15583E+16	0.25170E+02	0.63235E+00	0.1208751E+05
(2S) 5P1>1.0	0.15627E+16	0.16416E+00	0.41357E-02	0.1205400E+05
(2S) 5F1F3.0	0.20345E+16	0.55559E+01	0.18223E+00	0.9258398E+04
(2S) 6F1F3.0	0.22928E+16	0.21718E+01	0.80275E-01	0.8215574E+04
(2S) 7F1F3.0	0.24482E+16	0.10963E+01	0.43270E-01	0.7694082E+04
(2S) 8F1F3.0	0.25490E+16	0.63986E+00	0.26294E-01	0.7389891E+04
(2S) 9F1F3.0	0.26179E+16	0.40992E+00	0.17300E-01	0.7195277E+04
(2S) 10F1F3.0	0.26671E+16	0.27968E+00	0.12025E-01	0.7062645E+04
(2S) 11F1F3.0	0.27034E+16	0.20029E+00	0.87294E-02	0.6967668E+04
(2S) 12F1F3.0	0.27311E+16	0.14954E+00	0.65843E-02	0.6897027E+04
(2S) 13F1F3.0	0.27526E+16	0.11463E+00	0.50866E-02	0.6843219E+04
(2S) 14F1F3.0	0.27695E+16	0.89253E-01	0.39850E-02	0.6801332E+04

7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4P3D0.0	47847.000	2.817	61669.141	137.598	131.948

INTERACTIONS -- DIPOLE --

DESIGNATION		RAA**2	F	M L VAC
(25)	4S3S1.0	0.12526E+16	0.21130E+02	0.14223E+00
(25)	3D3D1.0	0.20720E+14	0.50450E+02	0.16852E-01
(25)	5S3S1.0	0.75817E+15	0.21378E+02	0.26130E+00
(25)	4D3D1.0	0.11952E+16	0.29792E+02	0.57403E+00
(25)	6S3S1.0	0.15152E+16	0.88607E+00	5.21644E-01
(25)	5D3D1.0	0.17181E+16	0.45217E+01	0.12524E+00
(25)	7S3S1.0	0.18848E+16	0.23311E+00	0.70830E-02
(25)	6D3D1.0	0.19957E+16	0.15203E+01	0.48913E-01
(25)	8S3S1.0	0.20937E+16	0.10039E+00	0.33886E-02
(25)	7D3D1.0	0.21605E+16	0.70539E+00	0.24570E-01
(25)	9S3S1.0	0.22229E+16	0.53789E-01	0.19276E-02
(25)	8D3D1.0	0.22666E+16	0.39034E+00	0.14263E-01
(25)	10S3S1.0	0.23086E+16	0.32832E-01	0.12220E-02
(25)	9D3D1.0	0.23387E+16	0.24140E+00	0.91016E-02
(25)	11S3S1.0	0.23683E+16	0.21777E-01	0.83145E-03
(25)	10D3D1.0	0.2398E+16	0.15961E+00	0.61493E-02
(25)	12S3S1.0	0.24115E+16	0.15154E-01	0.58914E-03
(25)	11D3D1.0	0.24275E+16	0.11182E+00	0.43760E-02
(25)	13S3S1.0	0.24437E+16	0.10928E-01	0.43052E-03
(25)	12D3D1.0	0.24557E+16	0.79539E-01	0.31499E-02
(25)	14S3S1.0	0.24685E+16	0.82942E-02	0.33008E-03
(25)	13D3D1.0	0.24779E+16	0.60250E-01	0.24073E-02
(25)	14D3D1.0	0.24953E+16	0.44961E-01	0.19097E-02

B - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		3D3D1.0	47957.000	2.824	01559.141	92.069	85.022

INTERACTIONS -- DIPOLE -  
DESIGNATION

		%	RAA**2	F	# L VAC
(25)	3P3D0.0	0.49176E+16	0.19209E+01	0.45587E+00	0.3830390E+04
(25)	3P3D1.0	0.49139E+16	0.14407E+01	0.11413E+00	0.3833327E+04
(25)	3P3D2.0	0.49062E+16	0.96043E-01	0.45581E-02	0.3839361E+04
(25)	4P3D0.0	0.20720E+14	0.16817E+02	0.16852E-01	0.9090909E+06
(25)	4P3D1.0	0.20720E+14	0.12612E+02	0.42131E-02	0.9090909E+06
(25)	4P3D2.0	0.19957E+14	0.84085E+00	0.16240E-03	0.9433962E+06
(25)	5P3D0.0	0.11858E+16	0.13556E+00	0.25914E-02	0.1588562E+05
(25)	5P3D1.0	0.11858E+16	0.10167E+00	0.19435E-02	0.1588562E+05
(25)	5P3D2.0	0.11858E+16	0.67781E-02	0.12957E-03	0.1588562E+05
(25)	4F3F2.0	0.12656E+16	0.42432E+02	0.85577E+00	0.1468316E+05
(25)	6P3D0.0	0.17068E+16	0.79990E-02	0.22010E-03	0.1103631E+05
(25)	6P3D1.0	0.17068E+16	0.59992E-02	0.16507E-03	0.1103631E+05
(25)	6P3D2.0	0.17072E+16	0.39995E-03	0.11007E-04	0.1103387E+05
(25)	5F3F2.0	0.17418E+16	0.66913E+01	0.18790E+00	0.1081432E+05
(25)	7P3D0.0	0.19818E+16	0.82490E-03	0.26355E-04	0.9504797E+04
(25)	7P3D1.0	0.19818E+16	0.61867E-03	0.19750E-04	0.9504797E+04
(25)	7P3D2.0	0.19810E+16	0.41245E-04	0.13178E-05	0.9504797E+04
(25)	6F3F2.0	0.20001E+16	0.22882E+01	0.73730E-01	0.9417969E+04
(25)	7F3F2.0	0.21555E+16	0.10770E+01	0.37424E-01	0.8738965E+04
(25)	8F3F2.0	0.22562E+16	0.60411E+00	0.21974E-01	0.8348637E+04
(25)	9F3F2.0	0.23252E+16	0.37746E+00	0.14149E-01	0.8101102E+04
(25)	10F3F2.0	0.23743E+16	0.25268E+00	0.95720E-02	0.7933359E+04
(25)	11F3F2.0	0.24107E+16	0.17871E+00	0.69454E-02	0.7613719E+04
(25)	12F3F2.0	0.24384E+16	0.13297E+00	0.52271E-02	0.772989E+04

INTERACTIONS -- QUADRUPOLE -

0.24746E+16	0.53799E+04
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## 9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		5S3S1.0	51872.000	3.346	61669.141	318.892	310.310

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA***2	F	# L VAC
(2S)	3P3P0.0	0.56551E+16	0.30971E-01	0.84708E-02	0.3330891E+04
(2S)	3P3P1.0	0.56513E+16	0.92911E-01	0.84649E-02	0.3333111E+04
(2S)	3P3P2.0	0.56436E+16	0.15486E+00	0.84535E-02	0.3337672E+04
(2S)	4P3P0.0	0.75817E+15	0.71260E+01	0.26130E+00	0.2484472E+05
(2S)	4P3P1.0	0.75817E+15	0.21378E+02	0.26123E+00	0.2484472E+05
(2S)	4P3P2.0	0.75742E+15	0.35630E+02	0.26104E+00	0.2485943E+05
(2S)	5P3P0.0	0.44831E+15	0.26778E+02	0.19353E+00	0.4201680E+05
(2S)	5P3P1.0	0.44831E+15	0.80331E+02	0.58059E+00	0.4201680E+05
(2S)	5P3P2.0	0.44631E+15	0.13389E+03	0.96766E+00	0.4201680E+05
(2S)	6P3P0.0	0.96933E+15	0.45803E+00	0.71576E-02	0.1943257E+05
(2S)	6P3P1.0	0.96933E+15	0.13741E+01	0.21472E-01	0.1943257E+05
(2S)	6P3P2.0	0.96970E+15	0.22901E+01	0.35802E-01	0.1942502E+05
(2S)	7P3P0.0	0.12443E+16	0.86579E-01	0.17368E-02	0.1513775E+05
(2S)	7P3P1.0	0.12443E+16	0.25973E+00	0.52103E-02	0.1513775E+05
(2S)	7P3P2.0	0.12443E+16	0.43289E+00	0.86840E-02	0.1513775E+05

## 10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		5S1S0.0	52556.000	3.469	61669.141	368.074	368.188

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA***2	F	# L VAC
(2S)	3P1P1.0	0.32973E+16	0.50936E+00	0.90255E-02	0.5712652E+04
(2S)	4P1P1.0	0.60465E+15	0.91567E+02	0.29753E+00	0.3115264E+05
(2S)	5P1P1.0	0.40367E+15	0.27611E+03	0.17968E+01	0.4656355E+05

11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		4P1J2.0	53134.000	3.585	01559.141	303.213	297.764

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	3P1>1.0	0.34062E+16	0.15178E-01	0.13891E-02	0.5530055E+04
(25)	4P1>1.0	0.71353E+15	0.59125E+02	0.11335E+01	0.2637915E+05
(25)	4F1F3.0	0.29046E+15	0.15737E+03	0.73692E+00	0.6485094E+05
(25)	5P1>1.0	0.29479E+15	0.63142E+02	0.30008E+00	0.6389775E+05
(25)	5F1F3.0	0.76645E+15	0.95560E+01	0.11811E+00	0.2457002E+05
(25)	6F1F3.0	0.10249E+16	0.38055E+01	0.62877E-01	0.1637897E+05
(25)	7F1F3.0	0.11803E+16	0.18359E+01	0.34934E-01	0.1595914E+05
(25)	8F1F3.0	0.12811E+16	0.10277E+01	0.21226E-01	0.1470372E+05
(25)	9F1F3.0	0.13500E+16	0.63836E+00	0.13893E-01	0.1395284E+05
(25)	10F1F3.0	0.13992E+16	0.42816E+00	0.96578E-02	0.1346257E+05
(25)	11F1F3.0	0.14355E+16	0.30180E+00	0.69645E-02	0.1312164E+05
(25)	12F1F3.0	0.14632E+16	0.21946E+00	0.51769E-02	0.1287332E+05
(25)	13F1F3.0	0.14847E+16	0.16573E+00	0.39659E-02	0.1268713E+05
(25)	14F1F3.0	0.15016E+16	0.12992E+00	0.31452E-02	0.1254390E+05

B - 141

ORIGINAL PAGE IS  
OF POOR QUALITY

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		433D1.0	54192.000	3.8330	61559.141	413.204	402.603

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	3P3D0.0	0.60921E+16	0.31792E+00	0.93673E-01	0.3091955E+04
(25)	3P3D1.0	0.60863E+16	0.23644E+00	0.23404E-01	0.3093866E+04
(25)	3P3D2.0	0.60806E+16	0.15896E-01	0.93497E-03	0.3097797E+04
(25)	4P3D0.0	0.11952E+16	0.99307E+01	0.57403E+00	0.1576044E+05
(25)	4P3D1.0	0.11952E+16	0.74480E+01	0.14351E+00	0.1576044E+05
(25)	4P3D2.0	0.11944E+16	0.49654E+00	0.57367E-02	0.1577039E+05
(25)	5P3D0.0	0.11302E+14	0.78689E+02	0.14337E-01	0.1666666E+07
(25)	5P3D1.0	0.11302E+14	0.59017E+02	0.10753E-01	0.1666666E+07
(25)	5P3D2.0	0.11302E+14	0.39345E+01	0.71888E-03	0.1666666E+07
(25)	4F3F2.0	0.91169E+14	0.15544E+03	0.22847E+00	0.2066116E+06
(25)	6P3D0.0	0.53232E+15	0.10413E+01	0.89360E-02	0.3538570E+05
(25)	6P3D1.0	0.53232E+15	0.78095E+00	0.67020E-02	0.3536570E+05
(25)	6P3D2.0	0.53270E+15	0.52054E-01	0.44712E-03	0.3535063E+05
(25)	5F3F2.0	0.56736E+15	0.62860E+02	0.57495E+00	0.3320053E+05
(25)	7P3D0.0	0.80733E+15	0.11981E+00	0.15593E-02	0.2333178E+05
(25)	7P3D1.0	0.80733E+15	0.89855E-01	0.11695E-02	0.2333178E+05
(25)	7P3D2.0	0.80733E+15	0.59904E-02	0.77967E-04	0.2333178E+05
(25)	6F3F2.0	0.82560E+15	0.12342E+02	0.16427E+00	0.2281542E+05
(25)	7F3F2.0	0.98101E+15	0.45433E+01	0.71853E-01	0.1920123E+05
(25)	8F3F2.0	0.10318E+16	0.22196E+01	0.38709E-01	0.1741250E+05
(25)	9F3F2.0	0.11507E+16	0.12721E+01	0.23599E-01	0.1636929E+05
(25)	10F3F2.0	0.11999E+16	0.80579E+00	0.15537E-01	0.1569859E+05
(25)	11F3F2.0	0.12362E+16	0.54726E+00	0.10907E-01	0.1523693E+05
(25)	12F3F2.0	0.12639E+16	0.39243E+00	0.79962E-02	0.1490313E+05

INTERACTIONS -- QUADRUPOLE -

0.13001E+16	0.72105E+05
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ORIGINAL PAGE IS  
OF POOR QUALITY



## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	5230.0		54252.000	3.845	61569.141	539.678	501.028

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	45351.0	0.24591E+16	0.37641E+00	0.49742E-02	0.7659898L+04
(25)	30301.0	0.11858E+16	0.40668E+00	0.25914E-02	0.1589562E+05
(25)	55351.0	0.44831E+15	0.80333E+02	0.19353E+00	0.4201680E+05
(25)	40301.0	0.11302E+14	0.23607E+03	0.14337E-01	0.1556666E+07
(25)	65351.0	0.30873E+15	0.82536E+02	0.41080E+00	0.6101261E+05
(25)	50301.0	0.51160E+15	0.77465E+02	0.63891E+00	0.3681885E+05
(25)	75351.0	0.67830E+15	0.27219E+01	0.29755E-01	0.2777006E+05
(25)	60301.0	0.78925E+15	0.11471E+02	0.14596E+00	0.2366635E+05
(25)	85351.0	0.88720E+15	0.66641E+00	0.95316E-02	0.2123142E+05
(25)	70301.0	0.95407E+15	0.38544E+01	0.59285E-01	0.1974334E+05
(25)	95351.0	0.10164E+16	0.27526E+00	0.45105E-02	0.1853225E+05
(25)	80301.0	0.10601E+16	0.17972E+01	0.30715E-01	0.1776830E+05
(25)	105351.0	0.11021E+16	0.14532E+00	0.25920E-02	0.1709109E+05
(25)	90301.0	0.11323E+16	0.10009E+01	0.18271E-01	0.1663616E+05
(25)	115351.0	0.11618E+16	0.88044E-01	0.16491E-02	0.1621271E+05
(25)	100301.0	0.11633E+16	0.62113E+00	0.11849E-01	0.1591850E+05
(25)	125351.0	0.12050E+16	0.57406E-01	0.11152E-02	0.1563232E+05
(25)	110301.0	0.12210E+16	0.41545E+00	0.81778E-02	0.1542734E+05
(25)	135351.0	0.12372E+16	0.39359E-01	0.79501E-03	0.1522533E+05
(25)	120301.0	0.12492E+16	0.28988E+00	0.58381E-02	0.1507841E+05
(25)	145351.0	0.12620E+16	0.28965E-01	0.58932E-03	0.1492537E+05
(25)	130301.0	0.12715E+16	0.21344E+00	0.43751E-02	0.1481481E+05
(25)	140301.0	0.12888E+16	0.15883E+00	0.33001E-02	0.1461561E+05

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	4F1F3.0		54676.000	3.960	61669.141	341.413	158.529

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	30102.0	0.15583E+16	0.17979E+02	0.63235E+00	0.1208751E+05
(25)	40102.0	0.29046E+15	0.11241E+03	0.73692E+00	0.6465084E+05
(25)	50102.0	0.30741E+15	0.26848E+02	0.13306E+00	0.6127451E+05
(25)	60102.0	0.63046E+15	0.96557E+00	0.98140E-02	0.2987750E+05
(25)	70102.0	0.82221E+15	0.19286E+00	0.25565E-02	0.2290956E+05
(25)	80102.0	0.94446E+15	0.66802E-01	0.10171E-02	0.1994416E+05
(25)	90102.0	0.10268E+16	0.30496E-01	0.50491E-03	0.1834525E+05
(25)	100102.0	0.10848E+16	0.15545E-01	0.28935E-03	0.1736412E+05
(25)	110102.0	0.11268E+16	0.96900E-02	0.17602E-03	0.1671682E+05
(25)	120102.0	0.11584E+16	0.61513E-02	0.11498E-03	0.1626015E+05
(25)	130102.0	0.11827E+16	0.40416E-02	0.77064E-04	0.1592610E+05

## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)	5P1P1.0		54699.000	3.967	61559.141	579.682	595.231

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

(2S)	4S1S0.0	0.21089E+16	0.39196E+00	0.39979E-01	0.8931758E+04
(2S)	3D1D2.0	0.15627E+16	0.27360E+00	0.41337E-02	0.1205400E+05
(2S)	5S1S0.0	0.40367E+15	0.92037E+02	0.17968E+01	0.4566355E+05
(2S)	4D1D2.0	0.29479E+15	0.10524E+03	0.30008E+00	0.6399776E+05
(2S)	6S1S0.0	0.26029E+15	0.95062E+02	0.42955E+00	0.6720425E+05
(2S)	5D1D2.0	0.30308E+15	0.29677E+03	0.14501E+01	0.6215040E+05
(2S)	7S1S0.0	0.62349E+15	0.29621E+01	0.29773E-01	0.3021143E+05
(2S)	6D1D2.0	0.62613E+15	0.22752E+01	0.22965E-01	0.3008423E+05
(2S)	7D1D2.0	0.61788E+15	0.37890E-01	0.49959E-03	0.2303086E+05
(2S)	8D1D2.0	0.94013E+15	0.81887E-02	0.12411E-03	0.2003606E+05
(2S)	9D1D2.0	0.10224E+16	0.28318E-01	0.45677E-03	0.1842299E+05
(2S)	10D1D2.0	0.10805E+16	0.32784E-01	0.57105E-03	0.1743375E+05
(2S)	11D1D2.0	0.11225E+16	0.37809E-01	0.68418E-03	0.1678134E+05
(2S)	12D1D2.0	0.11541E+16	0.37140E-01	0.69102E-03	0.1632120E+05
(2S)	13D1D2.0	0.11784E+16	0.37287E-01	0.70837E-03	0.1598465E+05

## INTERACTIONS -- QUADRUPOLE -

0.37010E+16 0.10843E+05

## 16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)	5D1D2.0		56308.000	4.523	61569.141	872.198	697.124

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

(2S)	3P1P1.0	0.40041E+16	0.12363E+00	0.13301E-01	0.4704332E+04
(2S)	4P1P1.0	0.13114E+16	0.23969E+00	0.84458E-02	0.1435369E+05
(2S)	4F1F3.0	0.30741E+15	0.37567E+02	0.13306E+00	0.6127451E+05
(2S)	5P1P1.0	0.30308E+15	0.17806E+03	0.14501E+01	0.6215040E+05
(2S)	5F1F3.0	0.16878E+15	0.47545E+03	0.12937E+01	0.1116071E+06
(2S)	6F1F3.0	0.42702E+15	0.13688E+01	0.94235E-02	0.4411116E+05
(2S)	7F1F3.0	0.53242E+15	0.15274E+01	0.14342E-01	0.3234152E+05
(2S)	8F1F3.0	0.68320E+15	0.95664E+00	0.10537E-01	0.2757099E+05
(2S)	9F1F3.0	0.75214E+15	0.60942E+00	0.73695E-02	0.2504382E+05
(2S)	10F1F3.0	0.80131E+15	0.41406E+00	0.53490E-02	0.2350723E+05
(2S)	11F1F3.0	0.83766E+15	0.29193E+00	0.39423E-02	0.2246707E+05
(2S)	12F1F3.0	0.86535E+15	0.20794E+00	0.29009E-02	0.2176752E+05
(2S)	13F1F3.0	0.88682E+15	0.15562E+00	0.22249E-02	0.2124044E+05
(2S)	14F1F3.0	0.90378E+15	0.12399E+00	0.18066E-02	0.2084202E+05

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		5J3J1.0	56968.000	4.830	61569.141	1162.410	1146.091

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(2S)	3P3P0.0	0.66150E+16	0.10998E+00	0.35185E-01	0.2847542E+04
(2S)	3P3P1.0	0.66112E+16	0.82483E-01	0.87913E-02	0.2849165E+04
(2S)	3P3P2.0	0.66035E+16	0.54590E-02	0.35125E-03	0.2852497E+04
(2S)	4P3P0.0	0.17181E+16	0.15072E+01	0.12524E+00	0.1095371E+05
(2S)	4P3P1.0	0.17181E+16	0.11304E+01	0.31310E-01	0.1096371E+05
(2S)	4P3P2.0	0.17173E+16	0.75362E-01	0.12519E-02	0.1096852E+05
(2S)	5P3P0.0	0.51160E+15	0.25822E+02	0.63691E+00	0.3681885E+05
(2S)	5P3P1.0	0.51160E+15	0.19366E+02	0.15973E+00	0.3681885E+05
(2S)	5P3P2.0	0.51160E+15	0.12911E+01	0.63891E-02	0.3681885E+05
(2S)	4F3F2.0	0.43173E+15	0.62527E+01	0.26112E-01	0.4353002E+05
(2S)	6P3P0.0	0.94183E+13	0.22455E+03	0.34095E-01	0.2000000E+07
(2S)	6P3P1.0	0.94183E+13	0.16841E+03	0.25571E-01	0.2000000E+07
(2S)	6P3P2.0	0.97950E+13	0.11228E+02	0.17730E-02	0.1923076E+07
(2S)	5F3F2.0	0.44454E+14	0.54021E+03	0.39145E+00	0.4237288E+06
(2S)	7P3P0.0	0.28443E+15	0.35204E+01	0.16143E-01	0.6622512E+05
(2S)	7P3P1.0	0.28443E+15	0.26403E+01	0.12107E-01	0.6622512E+05
(2S)	7P3P2.0	0.26443E+15	0.17602E+00	0.80713E-03	0.6622512E+05
(2S)	6F3F2.0	0.30270E+15	0.97310E+02	0.47487E+00	0.6222775E+05
(2S)	7F3F2.0	0.45810E+15	0.20310E+02	0.15000E+00	0.4111842E+05
(2S)	8F3F2.0	0.55868E+15	0.76780E+01	0.69178E-01	0.3379408E+05
(2S)	9F3F2.0	0.62782E+15	0.38146E+01	0.38609E-01	0.3000300E+05
(2S)	10F3F2.0	0.67698E+15	0.22141E+01	0.24164E-01	0.2782415E+05
(2S)	11F3F2.0	0.71334E+15	0.14159E+01	0.16293E-01	0.2640612E+05
(2S)	12F3F2.0	0.74103E+15	0.96771E+00	0.11561E-01	0.2541942E+05

INTERACTIONS -- QUADRUPOLE -

0.16974E+16	0.47354E+06
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## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		6330.0	57018.000	4.857	61569.141	1331.865	1319.936

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(2S)	453S1.0	0.23801E+16	0.77111E-01	0.12349E-02	0.6320711E+04
(2S)	30301.0	0.17068E+16	0.23997E-01	0.22010E-03	0.1103631E+05
(2S)	553S1.0	0.96933E+15	0.13741E+01	0.71576E-02	0.1943257E+05
(2S)	40301.0	0.53232E+15	0.31238E+01	0.89360E-02	0.3538570E+05
(2S)	653S1.0	0.21229E+15	0.21168E+03	0.24148E+00	0.8873112E+05
(2S)	50301.0	0.94183E+13	0.67366E+03	0.34055E-01	0.2000000E+07
(2S)	753S1.0	0.15728E+15	0.21880E+03	0.35490E+00	0.1197604E+06
(2S)	60301.0	0.26823E+15	0.16218E+03	0.70131E+00	0.7022469E+05
(2S)	853S1.0	0.36618E+15	0.63540E+01	0.37510E-01	0.5144033E+05
(2S)	70301.0	0.43305E+15	0.23402E+02	0.16338E+00	0.4349717E+05
(2S)	953S1.0	0.49540E+15	0.14651E+01	0.11701E-01	0.3802281E+05
(2S)	80301.0	0.55910E+15	0.77723E+01	0.67549E-01	0.3494060E+05
(2S)	1053S1.0	0.58111E+15	0.59036E+00	0.55306E-02	0.3241491E+05
(2S)	90301.0	0.61124E+15	0.36133E+01	0.35606E-01	0.3081664E+05
(2S)	1153S1.0	0.64082E+15	0.30692E+00	0.31708E-02	0.2939447E+05
(2S)	100301.0	0.66229E+15	0.20184E+01	0.21529E-01	0.2844141E+05
(2S)	1253S1.0	0.68395E+15	0.18121E+00	0.19931E-02	0.2754062E+05
(2S)	110301.0	0.69996E+15	0.12550E+01	0.14162E-01	0.2691066E+05
(2S)	1353S1.0	0.71616E+15	0.11582E+00	0.13372E-02	0.2630195E+05
(2S)	120301.0	0.72822E+15	0.84041E+00	0.98663E-02	0.2586653E+05
(2S)	1453S1.0	0.74103E+15	0.81321E-01	0.97150E-03	0.2541942E+05
(2S)	130301.0	0.75045E+15	0.59490E+00	0.71972E-02	0.2510040E+05
(2S)	140301.0	0.76778E+15	0.43499E+00	0.53841E-02	0.2453386E+05

## 19 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		5F1F3.0	57204.000	4.956	61569.141	1078.847	483.516

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(2S)	3D102.0	0.20345E+16	0.39685E+01	0.18223E+00	0.9258398E+04
(2S)	4D102.0	0.76665E+15	0.68257E+01	0.11811E+00	0.2457002E+05
(2S)	5D102.0	0.16878E+15	0.33961E+03	0.12937E+01	0.1116071E+06
(2S)	6D102.0	0.15427E+15	0.12765E+03	0.31748E+00	0.1221001E+06
(2S)	7D102.0	0.34603E+15	0.40227E+01	0.22441E-01	0.5443659E+05
(2S)	8D102.0	0.46828E+15	0.83323E+00	0.62903E-02	0.4022526E+05
(2S)	9D102.0	0.55059E+15	0.30259E+00	0.26959E-02	0.3421143E+05
(2S)	10D102.0	0.60861E+15	0.14524E+00	0.14251E-02	0.3095017E+05
(2S)	11D102.0	0.65061E+15	0.79139E-01	0.33007E-03	0.2895194E+05
(2S)	12D102.0	0.69226E+15	0.47992E-01	0.52786E-03	0.2750905E+05
(2S)	13D102.0	0.70656E+15	0.30604E-01	0.34860E-03	0.2655955E+05

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		5F3F2.0	57204.000	4.956	61559.141	1079.847	462.364

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	# L VAC	
(2S) 30301.0	0.17418E+16	0.40148E+01	0.18790E+00	0.1081432E+05	
(2S) 30302.0	0.17418E+16	0.74347E+00	0.20877E-01	0.1081432E+05	
(2S) 30303.0	0.17418E+16	0.21242E-01	0.42607E-03	0.1081432E+05	
(2S) 40301.0	0.56736E+15	0.37716E+02	0.57495E+00	0.3320053E+05	
(2S) 40302.0	0.56736E+15	0.69844E+01	0.63893E-01	0.3320053E+05	
(2S) 40303.0	0.56736E+15	0.19956E+00	0.13038E-02	0.3320053E+05	
(2S) 50301.0	0.44454E+14	0.32772E+03	0.39145E+00	0.4237288E+06	
(2S) 50302.0	0.44454E+14	0.60689E+02	0.43494E-01	0.4237288E+06	
(2S) 50303.0	0.44454E+14	0.17340E+01	0.88764E-03	0.4237288E+06	
(2S) 60301.0	0.23320E+15	0.16559E+02	0.62234E-01	0.8077544E+05	
(2S) 60302.0	0.23320E+15	0.30665E+01	0.11528E-01	0.8077544E+05	
(2S) 60303.0	0.23320E+15	0.87616E-01	0.32939E-03	0.8077544E+05	
(2S) 70301.0	0.39802E+15	0.15570E+01	0.99906E-02	0.4732607E+05	
(2S) 70302.0	0.39802E+15	0.26835E+00	0.18501E-02	0.4732607E+05	
(2S) 70303.0	0.39802E+15	0.82382E-02	0.52861E-04	0.4732607E+05	
(2S) 80301.0	0.50406E+15	0.42382E+00	0.34440E-02	0.3736921E+05	
(2S) 80302.0	0.50406E+15	0.78484E-01	0.63778E-03	0.3736921E+05	
(2S) 80303.0	0.50406E+15	0.22424E-02	0.18222E-04	0.3736921E+05	
(2S) 90301.0	0.57621E+15	0.17319E+00	0.16088E-02	0.3259042E+05	
(2S) 90302.0	0.57621E+15	0.32071E-01	0.29792E-03	0.3259042E+05	
(2S) 90303.0	0.57621E+15	0.91634E-03	0.85121E-05	0.3259042E+05	
(2S) 100301.0	0.62726E+15	0.89994E-01	0.91005E-03	0.3003003E+05	
(2S) 100302.0	0.62726E+15	0.16665E-01	0.16853E-03	0.3003003E+05	
(2S) 100303.0	0.62726E+15	0.47616E-03	0.48151E-05	0.3003003E+05	
(2S) 110301.0	0.66493E+15	0.52666E-01	0.56456E-03	0.2832861E+05	
(2S) 110302.0	0.66493E+15	0.97529E-02	0.10455E-03	0.2832861E+05	
(2S) 110303.0	0.66493E+15	0.27866E-03	0.29571E-05	0.2832861E+05	
(2S) 120301.0	0.69318E+15	0.35709E-01	0.39905E-03	0.2717391E+05	
(2S) 120302.0	0.69318E+15	0.66127E-02	0.73598E-04	0.2717391E+05	
(2S) 120303.0	0.69318E+15	0.18694E-03	0.21114E-05	0.2717391E+05	
(2S) 130301.0	0.71541E+15	0.24023E-01	0.27707E-03	0.2632964E+05	
(2S) 130302.0	0.71541E+15	0.44487E-02	0.51309E-04	0.2632964E+05	
(2S) 130303.0	0.71541E+15	0.12711E-03	0.14660E-05	0.2632964E+05	
(2S) 140301.0	0.73274E+15	0.18330E-01	0.21053E-03	0.2570694E+05	
(2S) 140302.0	0.73274E+15	0.33944E-02	0.40097E-04	0.2570694E+05	
(2S) 140303.0	0.73274E+15	0.96984E-04	0.11457E-05	0.2570694E+05	

INTERACTIONS -- QUADRUPOLE -

0.69657E+15	0.38408E+05
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21 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		6D102.0	58023.000	5.485	61559.141	2005.972	1203.207

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	# L VAC	
(2S) 3P1P1.0	0.43271E+16	0.10628E+00	0.12590E-01	0.4353125E+04	
(2S) 4P1P1.0	0.16344E+16	0.14744E-01	0.64750E-03	0.1152472E+05	
(2S) 4F1F3.0	0.63046E+15	0.13518E+01	0.98140E-02	0.2987750E+05	
(2S) 5P1P1.0	0.62613E+15	0.13651E+01	0.22965E-01	0.3009423E+05	
(2S) 5F1F3.0	0.15427E+15	0.17671E+03	0.31748E+00	0.1221001E+06	
(2S) 6F1F3.0	0.10398E+15	0.10199E+04	0.17097E+01	0.1811594E+06	
(2S) 7F1F3.0	0.25938E+15	0.66118E+00	0.27648E-02	0.7252162E+05	
(2S) 8F1F3.0	0.36015E+15	0.14276E+00	0.82891E-03	0.5230125E+05	
(2S) 9F1F3.0	0.42910E+15	0.23682E+00	0.16382E-02	0.4389816E+05	
(2S) 10F1F3.0	0.47626E+15	0.21427E+00	0.16521E-02	0.3939558E+05	
(2S) 11F1F3.0	0.51461E+15	0.16954E+00	0.14066E-02	0.3660322E+05	
(2S) 12F1F3.0	0.54230E+15	0.12354E+00	0.10900E-02	0.3473428E+05	
(2S) 13F1F3.0	0.56378E+15	0.94881E-01	0.36236E-03	0.3341129E+05	
(2S) 14F1F3.0	0.58073E+15	0.80289E-01	0.75158E-03	0.3243594E+05	

ORIGINAL PAGE IS  
OF POOR QUALITY.

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S) 633D1.0	56442.000	5.630	61669.141	2598.779	2557.500

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	# L VAC	
(2S) 3P3D0.0	0.68927E+16	0.51328E-01	0.17111E-01	0.2732838E+04	
(2S) 3P3D1.0	0.68849E+16	0.36496E-01	0.42753E-02	0.2734332E+04	
(2S) 3P3D2.0	0.68812E+16	0.25664E-02	0.17092E-03	0.2737401E+04	
(2S) 4P3D0.0	0.19957E+16	0.50676E+00	0.49713E-01	0.9438414E+04	
(2S) 4P3D1.0	0.19957E+16	0.36006E+00	0.12228E-01	0.9438414E+04	
(2S) 4P3D2.0	0.19950E+16	0.25338E-01	0.48695E-03	0.9441977E+04	
(2S) 5P3D0.0	0.78925E+15	0.38238E+01	0.14596E+00	0.2385635E+05	
(2S) 5P3D1.0	0.78925E+15	0.28678E+01	0.36490E-01	0.2386635E+05	
(2S) 5P3D2.0	0.78925E+15	0.19119E+00	0.14596E-02	0.2386635E+05	
(2S) 4F3F2.0	0.70938E+15	0.55503E+00	0.33035E-02	0.2655337E+05	
(2S) 6P3D0.0	0.26823E+15	0.54059E+02	0.70131E+00	0.7022469E+05	
(2S) 6P3D1.0	0.26823E+15	0.40544E+02	0.17532E+00	0.7022469E+05	
(2S) 6P3D2.0	0.26786E+15	0.27030E+01	0.70032E-02	0.7032344E+05	
(2S) 5F3F2.0	0.23320E+15	0.27599E+02	0.62254E-01	0.8077544E+05	
(2S) 7P3D0.0	0.67811E+13	0.50572E+03	0.55297E-01	0.2777777E+07	
(2S) 7P3D1.0	0.67811E+13	0.37929E+03	0.41455E-01	0.2777777E+07	
(2S) 7P3D2.0	0.67811E+13	0.26286E+02	0.27643E-02	0.2777777E+07	
(2S) 6F3F2.0	0.25053E+14	0.13129E+04	0.53027E+00	0.7518797E+06	
(2S) 7F3F2.0	0.13045E+15	0.14662E+03	0.42655E+00	0.1043841E+06	
(2S) 8F3F2.0	0.28123E+15	0.30922E+02	0.14019E+00	0.6697919E+05	
(2S) 9F3F2.0	0.35017E+15	0.11804E+02	0.66637E-01	0.5379236E+05	
(2S) 10F3F2.0	0.39933E+15	0.59217E+01	0.38123E-01	0.4715981E+05	
(2S) 11F3F2.0	0.43569E+15	0.34510E+01	0.24240E-01	0.4323569E+05	
(2S) 12F3F2.0	0.46338E+15	0.22053E+01	0.16474E-01	0.4055041E+05	

## INTERACTIONS -- QUADRUPOLE -

0.19750E+16	0.21388E+07
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## 23 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		7J1D2.0	59041.000	6.460	61569.141	3998.917	2400.220

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(25)	3P1P1.0	0.45189E+16	0.78654E-01	0.95530E-02	0.4163402E+04
(25)	4P1P1.0	0.18262E+16	0.48067E-01	0.23830E-02	0.1031459E+05
(25)	4F1F3.0	0.82221E+15	0.27001E+00	0.25565E-02	0.2290950E+05
(25)	5P1P1.0	0.81788E+15	0.22734E-01	0.49959E-03	0.2303085E+05
(25)	5F1F3.0	0.34603E+15	0.55318E+01	0.22441E-01	0.5443658E+05
(25)	6F1F3.0	0.87776E+14	0.50716E+03	0.51264E+00	0.2145922E+06
(25)	7F1F3.0	0.67623E+14	0.18780E+04	0.20473E+01	0.2785515E+06
(25)	8F1F3.0	0.15840E+15	0.86674E+01	0.23530E-01	0.1118568E+06
(25)	9F1F3.0	0.23734E+15	0.31817E+00	0.12174E-02	0.7930506E+05
(25)	10F1F3.0	0.28650E+15	0.27041E-02	0.12767E-04	0.6574619E+05
(25)	11F1F3.0	0.32286E+15	0.88790E-02	0.46215E-04	0.5834305E+05
(25)	12F1F3.0	0.35055E+15	0.14936E-01	0.84408E-04	0.5373455E+05
(25)	13F1F3.0	0.37202E+15	0.17540E-01	0.10513E-03	0.5063291E+05
(25)	14F1F3.0	0.38897E+15	0.21958E-01	0.13770E-03	0.4842615E+05



PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(25)		7D3D1.0	59317.000	6.829	61569.141	5039.395	3191.934

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	# L VAC
(25)	3P3D0.0	0.70575E+16	0.28161E-01	0.95122E-02	0.2669015E+04
(25)	3P3D1.0	0.70537E+16	0.21121E-01	0.24018E-02	0.2670441E+04
(25)	3P3D2.0	0.70460E+16	0.14061E-02	0.95967E-04	0.2673368E+04
(25)	4P3D0.0	0.21605E+16	0.23513E+00	0.24570E-01	0.8718395E+04
(25)	4P3D1.0	0.21605E+16	0.17635E+00	0.61424E-02	0.8718395E+04
(25)	4P3D2.0	0.21598E+16	0.11757E-01	0.24551E-03	0.8721434E+04
(25)	5P3D0.0	0.95407E+15	0.12848E+01	0.59235E-01	0.1974334E+05
(25)	5P3D1.0	0.95407E+15	0.96360E+00	0.14821E-01	0.1974334E+05
(25)	5P3D2.0	0.95407E+15	0.64241E-01	0.59285E-03	0.1974334E+05
(25)	4F3F2.0	0.87420E+15	0.14673E+00	0.12408E-02	0.2154708E+05
(25)	6P3D0.0	0.43305E+15	0.78008E+01	0.16338E+00	0.4349717E+05
(25)	6P3D1.0	0.43305E+15	0.58505E+01	0.40845E-01	0.4349717E+05
(25)	6P3D2.0	0.43267E+15	0.39004E+00	0.16324E-02	0.4353504E+05
(25)	5F3F2.0	0.59802E+15	0.25950E+01	0.99907E-02	0.4732607E+05
(25)	7P3D0.0	0.15804E+15	0.10032E+03	0.76678E+00	0.1191895E+06
(25)	7P3D1.0	0.15804E+15	0.75239E+02	0.19169E+00	0.1191895E+06
(25)	7P3D2.0	0.15804E+15	0.50160E+01	0.76679E-02	0.1191895E+06
(25)	6F3F2.0	0.13977E+15	0.76980E+02	0.10407E+00	0.1347709E+06
(25)	7F3F2.0	0.15634E+14	0.26295E+04	0.66277E+00	0.1204819E+07
(25)	8F3F2.0	0.11641E+15	0.21008E+03	0.39426E+00	0.1518122E+06
(25)	9F3F2.0	0.18535E+15	0.44526E+02	0.13305E+00	0.1015260E+06
(25)	10F3F2.0	0.23451E+15	0.17125E+02	0.64744E-01	0.8032125E+05
(25)	11F3F2.0	0.27087E+15	0.85833E+01	0.37482E-01	0.6954100E+05
(25)	12F3F2.0	0.29856E+15	0.49668E+01	0.23906E-01	0.6309148E+05

INTERACTIONS -- QUADRUPOLE -

0.21398E+16	0.74990E+07
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		80102.0	59690.000	7.444	61659.141	7206.395	4321.074

INTERACTIONS -- DIPOLE -			RAA**2	F	#.L VAC
DESIGNATION					
(2S)	3P1P1.0	0.46411E+16	0.55895E-01	0.69703E-02	0.4058605E+04
(2S)	4P1P1.0	0.19484E+16	0.50327E-01	0.26348E-02	0.9667437E+04
(2S)	4F1F3.0	0.94446E+15	0.93523E-01	0.10171E-02	0.1994416E+05
(2S)	5P1P1.0	0.94013E+15	0.49132E-02	0.12411E-03	0.2003606E+05
(2S)	5F1F3.0	0.46828E+15	0.11665E+01	0.62903E-02	0.4022526E+05
(2S)	6F1F3.0	0.21003E+15	0.14074E+02	0.34038E-01	0.8958606E+05
(2S)	7F1F3.0	0.54626E+14	0.11252E+04	0.70791E+00	0.3448276E+06
(2S)	8F1F3.0	0.46149E+14	0.31502E+04	0.23437E+01	0.4081632E+06
(2S)	9F1F3.0	0.11509E+15	0.27290E+02	0.50635E-01	0.1636661E+06
(2S)	10F1F3.0	0.16425E+15	0.23998E+01	0.63548E-02	0.1146789E+06
(2S)	11F1F3.0	0.20061E+15	0.41149E+00	0.13308E-02	0.9389669E+05
(2S)	12F1F3.0	0.22830E+15	0.11255E+00	0.41426E-03	0.8250825E+05
(2S)	13F1F3.0	0.24977E+15	0.34366E-01	0.13838E-03	0.7541475E+05
(2S)	14F1F3.0	0.26673E+15	0.67233E-02	0.28910E-04	0.7062144E+05

ORIGINAL PAGE IS  
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		B331.0	59880.000	7.830	61559.141	8973.965	5308.109

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	L VAC
(25)	3P3P0.0	0.71635E+16	0.17276E-01	0.59853E-02	0.2629503E+04
(25)	3P3P1.0	0.71598E+16	0.12957E-01	0.14955E-02	0.2630886E+04
(25)	3P3P2.0	0.71520E+16	0.86378E-03	0.59757E-04	0.2633727E+04
(25)	4P3P0.0	0.22666E+16	0.13011E+00	0.14253E-01	0.8310477E+04
(25)	4P3P1.0	0.22666E+16	0.97585E-01	0.35658E-02	0.8310477E+04
(25)	4P3P2.0	0.22658E+16	0.65058E-02	0.14259E-03	0.8313242E+04
(25)	5P3P0.0	0.10501E+16	0.55906E+00	0.30715E-01	0.1776830E+05
(25)	5P3P1.0	0.10601E+16	0.44929E+00	0.76796E-02	0.1776830E+05
(25)	5P3P2.0	0.10601E+16	0.29953E-01	0.30715E-03	0.1776830E+05
(25)	4F3F2.0	0.98025E+15	0.57867E-01	0.54859E-03	0.1921598E+05
(25)	6P3P0.0	0.53710E+15	0.25908E+01	0.67549E-01	0.3494060E+05
(25)	6P3P1.0	0.53910E+15	0.19431E+01	0.16887E-01	0.3494060E+05
(25)	6P3P2.0	0.53872E+15	0.12954E+00	0.67503E-03	0.3496505E+05
(25)	5F3F2.0	0.50406E+15	0.70636E+00	0.34440E-02	0.3736921E+05
(25)	7P3P0.0	0.26409E+15	0.13969E+02	0.17842E+00	0.7132662E+05
(25)	7P3P1.0	0.26409E+15	0.10477E+02	0.44604E-01	0.7132662E+05
(25)	7P3P2.0	0.26409E+15	0.69845E+00	0.17842E-02	0.7132662E+05
(25)	6F3F2.0	0.24582E+15	0.72465E+01	0.17230E-01	0.7652831E+05
(25)	7F3F2.0	0.90415E+14	0.16854E+03	0.14740E+00	0.2083333E+06
(25)	8F3F2.0	0.10360E+14	0.47043E+04	0.78571E+00	0.1818181E+07
(25)	9F3F2.0	0.79302E+14	0.29721E+03	0.37997E+00	0.2375297E+06
(25)	10F3F2.0	0.12847E+15	0.63012E+02	0.13050E+00	0.1466276E+06
(25)	11F3F2.0	0.16482E+15	0.24021E+02	0.63826E-01	0.1142857E+06
(25)	12F3F2.0	0.19251E+15	0.11864E+02	0.36819E-01	0.9784731E+05

INTERACTIONS -- QUADRUPOLE -

0.22459E+16	0.22156E+08
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## ALUMINUM ---- 13 ---- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1S)	46279.000
	2	(3P)	86000.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 3P2P0.5	0.0	112.00
2	(1S) 4S2S0.5	25347.00	
3	(1S) 3D2D1.5	32435.00	32436.00
4	(1S) 4P2P0.5	32949.00	32965.00
5	(1S) 5S2S0.5	37689.00	
6	(1S) 4J2J1.5	38929.00	38933.00
7	(1S) 5P2P0.5	40271.00	40277.00
8	(1S) 4F2F2.5	41318.00	41315.00
9	(1S) 6S2S0.5	42144.00	
10	(1S) 5D2D1.5	42233.00	42237.00
11	(1S) 6P2P0.5	43334.00	43337.00
12	(1S) 5F2F2.5	43831.00	43831.00
13	(1S) 6D2D1.5	44166.00	44168.00
14	(1S) 7S2S0.5	44273.00	
15	(1S) 7P2P0.5	44929.00	44930.00
16	(1S) 6F2F2.5	45194.00	45194.00
17	(1S) 7D2D1.5	45344.00	45345.00
18	(1S) 8S2S0.5	45457.00	
19	(1S) 7F2F2.5	46015.00	46015.00
20	(1S) 8D2D1.5	46093.00	46094.00
21	(1S) 9S2S0.5	46184.00	
22	(1S) 9D2D1.5	46593.00	46593.00
23	(1S) 10S2S0.5	46665.00	
24	(1S) 10D2D1.5	46942.00	46942.00
25	(1S) 11D2D1.5	47192.00	47192.00

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		3P2P0.5	0.0	1.508	48279.000	7.037	5.703
INTERACTIONS -- DIPOLE -							
DESIGNATION		W	RAA**2	F	W L VAC		
(1S)	4S2S0.5	0.47745E+16	0.85558E+00	0.65855E-01	0.3945240E+04		
(1S)	3D2J1.5	0.61096E+16	0.42632E+01	0.41991E+00	0.3063069E+04		
(1S)	5S2S0.5	0.70993E+16	0.10224E+00	0.11701E-01	0.2653294E+04		
(1S)	4D2J1.5	0.73329E+16	0.13910E-01	0.16444E-02	0.2568779E+04		
(1S)	6S2S0.5	0.79385E+16	0.39313E-01	0.50312E-02	0.2372617E+04		
(1S)	5D2J1.5	0.79552E+16	0.80322E-01	0.10301E-01	0.2367815E+04		
(1S)	6D2J1.5	0.83193E+16	0.98960E-01	0.13273E-01	0.2264185E+04		
(1S)	7S2S0.5	0.83395E+16	0.20655E-01	0.27769E-02	0.2258713E+04		
(1S)	7D2J1.5	0.85412E+16	0.73336E-01	0.10098E-01	0.2205363E+04		
(1S)	8S2S0.5	0.85625E+16	0.12550E-01	0.17323E-02	0.2199881E+04		
(1S)	8D2J1.5	0.85823E+16	0.50529E-01	0.70726E-02	0.2169527E+04		
(1S)	9S2S0.5	0.86995E+16	0.82977E-02	0.11637E-02	0.2165252E+04		
(1S)	9D2J1.5	0.87765E+16	0.35177E-01	0.49771E-02	0.2145245E+04		
(1S)	10S2S0.5	0.87901E+16	0.57497E-02	0.81479E-03	0.2142934E+04		
(1S)	10D2J1.5	0.88422E+16	0.24967E-01	0.35590E-02	0.2130288E+04		
(1S)	11D2J1.5	0.88893E+16	0.18457E-01	0.26450E-02	0.2119003E+04		

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ORIGINAL PAGE IS  
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2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		3P2P1.5	112.000	1.508	48279.000	7.0d7	5.703

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	4S2S0.5	0.47534E+16	0.85557E+00	0.65504E-01	0.3962750E+04
(1S)	3D2D1.5	0.60885E+16	0.42632E+00	0.41846E-01	0.3093772E+04
(1S)	3D2D2.5	0.60887E+16	0.38369E+01	0.37663E+00	0.3093677E+04
(1S)	5S2S0.5	0.70782E+16	0.10224E+00	0.11607E-01	0.2661202E+04
(1S)	4D2D1.5	0.73118E+16	0.13910E-02	0.16396E-03	0.2570191E+04
(1S)	4D2D2.5	0.73125E+16	0.12519E-01	0.14758E-02	0.2575925E+04
(1S)	6S2S0.5	0.79174E+16	0.39313E-01	0.50178E-02	0.2379140E+04
(1S)	5D2D1.5	0.79341E+16	0.60322E-02	0.10274E-02	0.2374113E+04
(1S)	5D2D2.5	0.79349E+16	0.72290E-01	0.92474E-02	0.2373887E+04
(1S)	6D2D1.5	0.82982E+16	0.98961E-02	0.13239E-02	0.2269941E+04
(1S)	6D2D2.5	0.82986E+16	0.89064E-01	0.11916E-01	0.2269838E+04
(1S)	7S2S0.5	0.83184E+16	0.20655E-01	0.27699E-02	0.2264441E+04
(1S)	7D2D1.5	0.85201E+16	0.73336E-02	0.10073E-02	0.2210824E+04
(1S)	7D2D2.5	0.85203E+16	0.66002E-01	0.90660E-02	0.2210775E+04
(1S)	8S2S0.5	0.85414E+16	0.12549E-01	0.17281E-02	0.2205315E+04
(1S)	8D2D1.5	0.86612E+16	0.50529E-02	0.70555E-03	0.2174811E+04
(1S)	8D2D2.5	0.86614E+16	0.45476E-01	0.63501E-02	0.2174764E+04
(1S)	9S2S0.5	0.86784E+16	0.82977E-02	0.11609E-02	0.2170516E+04
(1S)	9D2D1.5	0.87534E+16	0.35177E-02	0.49652E-03	0.2151417E+04
(1S)	9D2D2.5	0.87554E+16	0.31659E-01	0.44686E-02	0.2151417E+04
(1S)	10S2S0.5	0.87690E+16	0.57497E-02	0.81233E-03	0.2148089E+04
(1S)	10D2D1.5	0.88211E+16	0.24967E-02	0.35503E-03	0.2135383E+04
(1S)	10D2D2.5	0.88211E+16	0.22470E-01	0.31955E-02	0.2135363E+04
(1S)	11D2D1.5	0.88682E+16	0.18457E-02	0.26387E-03	0.2124044E+04
(1S)	11D2D2.5	0.88682E+16	0.16611E-01	0.23748E-02	0.2124044E+04

INTERACTIONS -- QUADRUPOLE --

0.84418E+16	0.38314E+02
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## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		432S0.5	25347.000	2.187	48279.000	59.575	53.761

INTERACTIONS -- DIPOLE --  
DESIGNATION W

		W	RAA***2	F	W L VAC
(1S)	3P2P0.5	0.47745E+16	0.85558E+00	0.65855E-01	0.3945240E+04
(1S)	3P2P1.5	0.47534E+16	0.17111E+01	0.65564E-01	0.3962750E+04
(1S)	4P2P0.5	0.14320E+16	0.16542E+02	0.38880E+00	0.1315443E+05
(1S)	4P2P1.5	0.14350E+16	0.33684E+02	0.77922E+00	0.1312680E+05
(1S)	5P2P0.5	0.28112E+16	0.19299E+00	0.87463E-02	0.6700613E+04
(1S)	5P2P1.5	0.28123E+16	0.38598E+00	0.17500E-01	0.6697922E+04
(1S)	6P2P0.5	0.33881E+16	0.27430E-01	0.14983E-02	0.5559570E+04
(1S)	6P2P1.5	0.33887E+16	0.54860E-01	0.29970E-02	0.5558641E+04
(1S)	7P2P0.5	0.36884E+16	0.92561E-02	0.55038E-03	0.5105988E+04
(1S)	7P2P1.5	0.36888E+16	0.18512E-01	0.11009E-02	0.5106469E+04

## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		302D1.5	32435.000	2.631	48279.000	60.295	50.187

INTERACTIONS -- DIPOLE --  
DESIGNATION W

		W	RAA***2	F	W L VAC
(1S)	3P2P0.5	0.61096E+15	0.21316E+01	0.41991E+00	0.3083089E+04
(1S)	3P2P1.5	0.60885E+16	0.42632E+00	0.41846E-01	0.3093772E+04
(1S)	4P2P0.5	0.90820E+14	0.16557E+02	0.25844E-01	0.1945525E+06
(1S)	4P2P1.5	0.99834E+14	0.33114E+01	0.53296E-02	0.1860792E+06
(1S)	5P2P0.5	0.14760E+16	0.43461E-02	0.10342E-03	0.1276161E+05
(1S)	5P2P1.5	0.14772E+16	0.86922E-03	0.20700E-04	0.1275185E+05
(1S)	6F2F2.5	0.16732E+16	0.19798E+02	0.53406E+00	0.1125746E+05
(1S)	6P2P0.5	0.20530E+16	0.37807E-02	0.12513E-03	0.9175152E+04
(1S)	6P2P1.5	0.20536E+16	0.75613E-03	0.25033E-04	0.9172625E+04
(1S)	5F2F2.5	0.21466E+16	0.48972E+01	0.16948E+00	0.8775008E+04
(1S)	7P2P0.5	0.23532E+16	0.65367E-02	0.24799E-03	0.8004480E+04
(1S)	7P2P1.5	0.23536E+16	0.13073E-02	0.49606E-04	0.8003199E+04
(1S)	6F2F2.5	0.24034E+16	0.20082E+01	0.77809E-01	0.7837602E+04
(1S)	7F2F2.5	0.25580E+16	0.10395E+01	0.42867E-01	0.7363770E+04

## INTERACTIONS -- QUADRUPOLE --

0.27797E+16	0.21740E+04
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ORIGINAL PAGE IS  
OF POOR QUALITY.

## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		302D2.5	32436.000	2.631	48279.000	60.295	50.187

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(1S)	3P2P1.5	0.60887E+16	0.25579E+01	0.37663E+00	0.3093677E+04
(1S)	4P2P1.5	0.99645E+14	0.19869E+02	0.31917E-01	0.1890359E+06
(1S)	5P2P1.5	0.14770E+10	0.52153E-02	0.12418E-03	0.1275347E+05
(1S)	4F2F2.5	0.16731E+16	0.94278E+00	0.25429E-01	0.1125872E+05
(1S)	4F2F3.5	0.16731E+16	0.18855E+02	0.50857E+00	0.1125872E+05
(1S)	6P2P1.5	0.20534E+16	0.45368E-02	0.15018E-03	0.9173469E+04
(1S)	5F2F2.5	0.21464E+16	0.23320E+00	0.80696E-02	0.8775777E+04
(1S)	5F2F3.5	0.21464E+16	0.46640E+01	0.16139E+00	0.8775777E+04
(1S)	7P2P1.5	0.23534E+16	0.78441E-02	0.29761E-03	0.8003840E+04
(1S)	6F2F2.5	0.24032E+16	0.95630E-01	0.37049E-02	0.7838219E+04
(1S)	6F2F3.5	0.24032E+16	0.19126E+01	0.74098E-01	0.7838219E+04
(1S)	7F2F2.5	0.25578E+16	0.49499E-01	0.20411E-02	0.7364312E+04
(1S)	7F2F3.5	0.25578E+16	0.98998E+00	0.40822E-01	0.7364312E+04

## INTERACTIONS -- QUADRUPOLE -

0.27795E+16	0.33817E+04
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## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		4P2P0.5	32949.000	2.676	48279.000	110.206	123.261

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(1S)	4S2S0.5	0.14320E+16	0.16642E+02	0.38880E+00	0.1315443E+05
(1S)	3D2D1.5	0.96820E+14	0.33114E+02	0.25844E-01	0.1945525E+06
(1S)	5S2S0.5	0.89285E+15	0.17027E+02	0.24509E+00	0.2109704E+05
(1S)	4D2D1.5	0.11264E+16	0.53898E+02	0.97870E+00	0.1672241E+05
(1S)	6S2S0.5	0.17340E+16	0.84665E+00	0.23641E-01	0.1087547E+05
(1S)	5D2D1.5	0.17485E+16	0.30912E+00	0.37149E-02	0.1077122E+05
(1S)	6D2D1.5	0.21129E+16	0.12394E+00	0.42218E-02	0.8915039E+04
(1S)	7S2S0.5	0.21330E+16	0.24693E+00	0.84915E-02	0.8830801E+04
(1S)	7D2D1.5	0.23348E+16	0.20031E+00	0.75399E-02	0.8067766E+04
(1S)	8S2S0.5	0.23561E+16	0.11391E+00	0.43267E-02	0.7994803E+04
(1S)	8D2D1.5	0.24759E+16	0.16707E+00	0.66683E-02	0.7608031E+04
(1S)	9S2S0.5	0.24930E+16	0.64601E-01	0.25964E-02	0.7555723E+04
(1S)	9D2D1.5	0.25701E+16	0.12543E+00	0.51971E-02	0.7329227E+04
(1S)	10S2S0.5	0.25836E+16	0.41827E-01	0.17422E-02	0.7290754E+04
(1S)	10D2D1.5	0.26358E+16	0.90529E-01	0.38468E-02	0.7146430E+04
(1S)	11D2D1.5	0.26829E+16	0.69390E-01	0.30012E-02	0.7020992E+04



## 7 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)	5S250.5	37689.000	3.218	48279.000	273.331	265.506

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA***2	F	W L VAC
(1S)	3P2P0.5	0.70993E+16	0.10224E+00	0.11701E-01
(1S)	3P2P1.5	0.70782E+16	0.20446E+00	0.11607E-01
(1S)	4P2P0.5	0.89285E+15	0.17027E+02	0.24509E+00
(1S)	4P2P1.5	0.88984E+15	0.34054E+02	0.24420E+00
(1S)	5P2P0.5	0.48636E+15	0.70338E+02	0.55151E+00
(1S)	5P2P1.5	0.48749E+15	0.14068E+03	0.11056E+01
(1S)	6P2P0.5	0.10633E+16	0.68283E+00	0.15134E-01
(1S)	6P2P1.5	0.10639E+16	0.17657E+01	0.30263E-01
(1S)	7P2P0.5	0.13636E+16	0.15207E+00	0.33429E-02
(1S)	7P2P1.5	0.13640E+16	0.30413E+00	0.66876E-02

## 8 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)	4D2D1.5	38929.000	3.425	48279.000	243.396	238.297

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA***2	F	W L VAC
(1S)	3P2P0.5	0.73329E+16	0.67549E-02	0.16444E-02
(1S)	3P2P1.5	0.73118E+16	0.13910E-02	0.16396E-03
(1S)	4P2P0.5	0.11264E+16	0.26949E+02	0.97870E+00
(1S)	4P2P1.5	0.11234E+16	0.53898E+01	0.97015E+01
(1S)	5P2P0.5	0.25279E+15	0.52083E+02	0.21225E+00
(1S)	5P2P1.5	0.25392E+15	0.10417E+02	0.42640E-01
(1S)	4F2F2.5	0.45000E+15	0.14171E+03	0.10281E+01
(1S)	6P2P0.5	0.62975E+15	0.31710E+00	0.42418E-02
(1S)	6P2P1.5	0.83031E+15	0.63421E-01	0.84894E-03
(1S)	5F2F2.5	0.92337E+15	0.30785E+03	0.45826E-02
(1S)	7P2P0.5	0.11300E+16	0.94245E-01	0.17165E-02
(1S)	7P2P1.5	0.11304E+16	0.18845E-01	0.34342E-03
(1S)	6F2F2.5	0.11801E+16	0.55140E+00	0.10490E-01
(1S)	7F2F2.5	0.13348E+16	0.38521E+00	0.82891E-02

## INTERACTIONS -- QUADRUPOLE --

0.15565E+16	0.23231E+05
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		SP2P1.5	40277.000	3.702	48279.000	435.155	476.159

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(1S) 4S2S0.5	0.28123E+16	0.19299E+00	0.17500E-01	0.6697922E+04
(1S) 3D2D1.5	0.14772E+16	0.86922E-03	0.20700E-04	0.1275165E+05
(1S) 3D2D2.5	0.14770E+16	0.78230E-02	0.12418E-03	0.1275347E+05
(1S) 5S2S0.5	0.48749E+15	0.70338E+02	0.11056E+01	0.3663987E+05
(1S) 4D2D1.5	0.25392E+15	0.10417E+02	0.42640E-01	0.7416394E+05
(1S) 4D2D2.5	0.25316E+15	0.93749E+02	0.25508E+00	0.7440475E+05
(1S) 6S2S0.5	0.35168E+15	0.68523E+02	0.38850E+00	0.5356186E+05
(1S) 5D2D1.5	0.36844E+15	0.22772E+02	0.13526E+00	0.5112474E+05
(1S) 5D2D2.5	0.36920E+15	0.20495E+03	0.12198E+01	0.5102041E+05
(1S) 6D2D1.5	0.73255E+15	0.23169E-01	0.27362E-03	0.2571355E+05
(1S) 6D2D2.5	0.73293E+15	0.20852E+00	0.24639E-02	0.2570033E+05
(1S) 7S2S0.5	0.75271E+15	0.26102E+01	0.31675E-01	0.2502502E+05
(1S) 7D2D1.5	0.95445E+15	0.26128E-01	0.40203E-03	0.1973554E+05
(1S) 7D2D2.5	0.95463E+15	0.23515E+00	0.30190E-02	0.1773165E+05
(1S) 8S2S0.5	0.97573E+15	0.67772E+00	0.10661E-01	0.1930502E+05
(1S) 8D2D1.5	0.10955E+16	0.33852E-01	0.59788E-03	0.1719395E+05
(1S) 8D2D2.5	0.10957E+16	0.30467E+00	0.53818E-02	0.1719099E+05
(1S) 9S2S0.5	0.11127E+16	0.29388E+00	0.52715E-02	0.1692907E+05
(1S) 9D2D1.5	0.11897E+16	0.27758E-01	0.53240E-03	0.1563260E+05
(1S) 9D2D2.5	0.11897E+16	0.24982E+00	0.47916E-02	0.1563280E+05
(1S) 10S2S0.5	0.12033E+16	0.16485E+00	0.31979E-02	0.1565435E+05
(1S) 10D2D1.5	0.12555E+16	0.20148E-01	0.40780E-03	0.1500375E+05
(1S) 10D2D2.5	0.12555E+16	0.18134E+00	0.36702E-02	0.1500375E+05
(1S) 11D2D1.5	0.13025E+16	0.15746E-01	0.33065E-03	0.1446131E+05
(1S) 11D2D2.5	0.13025E+16	0.14171E+00	0.29758E-02	0.1446131E+05

## INTERACTIONS -- QUADRUPOLE -

0.75868E+16	0.10371E+06
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## 10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		6S2S0.5	42144.000	4.228	48279.000	807.948	797.859

INTERACTIONS -- DIPOLE --  
DESIGNATION

		W	RAA**2	F	W L VAC
(1S)	3P2P0.5	0.79385E+16	0.39313E-01	0.50312E-02	0.2372817E+04
(1S)	3P2P1.5	0.79174E+16	0.78625E-01	0.50178E-02	0.2379140E+04
(1S)	4P2P0.5	0.17320E+16	0.84665E+00	0.23641E-01	0.1087547E+05
(1S)	4P2P1.5	0.17290E+16	0.16933E+01	0.23599E-01	0.1089443E+05
(1S)	5P2P0.5	0.35281E+15	0.68524E+02	0.38975E+00	0.5339028E+05
(1S)	5P2P1.5	0.35168E+15	0.13705E+03	0.38850E+00	0.5356166E+05
(1S)	6P2P0.5	0.22415E+15	0.19372E+03	0.70005E+00	0.8403356E+05
(1S)	6P2P1.5	0.22472E+15	0.38744E+03	0.14036E+01	0.8382225E+05
(1S)	7P2P0.5	0.52441E+15	0.26224E+01	0.23859E-01	0.3591954E+05
(1S)	7P2P1.5	0.52479E+15	0.56443E+01	0.47752E-01	0.3589375E+05

## 11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		502D1.5	42233.000	4.260	48279.000	668.761	664.439

INTERACTIONS -- DIPOLE --  
DESIGNATION

		W	RAA**2	F	W L VAC
(1S)	3P2P0.5	0.79552E+16	0.40151E-01	0.10301E-01	0.2367816E+04
(1S)	3P2P1.5	0.79341E+16	0.80322E-02	0.10274E-02	0.2374113E+04
(1S)	4P2P0.5	0.17486E+16	0.15456E+00	0.87149E-02	0.1077122E+05
(1S)	4P2P1.5	0.17458E+16	0.30912E-01	0.86999E-03	0.1078981E+05
(1S)	5P2P0.5	0.35957E+15	0.11386E+03	0.13558E+01	0.5096840E+05
(1S)	5P2P1.5	0.36844E+15	0.22774E+02	0.13526E+00	0.5112474E+05
(1S)	4F2F2.5	0.17235E+15	0.89445E+02	0.16569E+00	0.1092896E+06
(1S)	6P2P0.5	0.23739E+15	0.10251E+03	0.34274E+00	0.9062650E+05
(1S)	6P2P1.5	0.20796E+15	0.20502E+02	0.68734E-01	0.9057969E+05
(1S)	5F2F2.5	0.30101E+15	0.30127E+03	0.14620E+01	0.6257822E+05
(1S)	7P2P0.5	0.50764E+15	0.26523E+01	0.21706E-01	0.3710575E+05
(1S)	7P2P1.5	0.50802E+15	0.53045E+00	0.43444E-02	0.3707823E+05
(1S)	6F2F2.5	0.55775E+15	0.92012E+01	0.82735E-01	0.3377237E+05
(1S)	7F2F2.5	0.71240E+15	0.14629E+01	0.16801E-01	0.2644104E+05

## INTERACTIONS -- QUADRUPOLE --

0.13456E+16	0.12489E+06
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## 12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(1S)		6P2P0.5	43334.000	4.710	48279.000	1175.373	1235.793

## INTERACTIONS -- DIPOLE --

DESIGNATION	#	RAA***2	F	W L VAC
(1S)	4S2S0.5	0.33881E+16	0.27430E-01	0.14983E-02
(1S)	3U2D1.5	0.20530E+16	0.75613E-02	0.12513E-03
(1S)	5S2S0.5	0.10633E+16	0.68283E+00	0.15134E-01
(1S)	4D2D1.5	0.82975E+15	0.63420E+00	0.42418E-02
(1S)	6S2S0.5	0.22415E+15	0.19372E+03	0.70005E+00
(1S)	5D2D1.5	0.20739E+15	0.20502E+03	0.34274E+00
(1S)	6D2D1.5	0.15672E+15	0.63995E+03	0.15169E+01
(1S)	7S2S0.5	0.17687E+15	0.18546E+03	0.52844E+00
(1S)	7D2D1.5	0.37861E+15	0.83363E-01	0.50833E-03
(1S)	8S2S0.5	0.39990E+15	0.61555E+01	0.39684E-01
(1S)	8D2D1.5	0.51970E+15	0.46476E+00	0.40614E-02
(1S)	9S2S0.5	0.53684E+15	0.14920E+01	0.12912E-01
(1S)	9D2D1.5	0.61388E+15	0.52778E+00	0.52233E-02
(1S)	10S2S0.5	0.62744E+15	0.63890E+00	0.64627E-02
(1S)	10D2D1.5	0.67962E+15	0.39091E+00	0.42830E-02
(1S)	11D2D1.5	0.72671E+15	0.31052E+00	0.36379E-02

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(1S)		5F2F2.5	43831.000	4.966	48279.000	1088.778	515.077

## INTERACTIONS -- DIPOLE --

DESIGNATION	#	RAA***2	F	W L VAC
(1S)	3U2D1.5	0.21466E+16	0.32648E+01	0.16948E+00
(1S)	3U2D2.5	0.21464E+16	0.23320E+00	0.80690E-02
(1S)	4D2D1.5	0.92337E+15	0.20523E+00	0.45826E-02
(1S)	4D2D2.5	0.92261E+15	0.14659E-01	0.21804E-03
(1S)	5D2D1.5	0.30101E+15	0.20085E+03	0.14620E+01
(1S)	5D2D2.5	0.30025E+15	0.14346E+02	0.69444E-01
(1S)	6D2D1.5	0.63102E+14	0.27620E+03	0.24098E+00
(1S)	6D2D2.5	0.63479E+14	0.19729E+02	0.20190E-01
(1S)	7D2D1.5	0.28500E+15	0.96720E-01	0.45357E-03
(1S)	7D2D2.5	0.28518E+15	0.70514E-02	0.32420E-04
(1S)	8D2D1.5	0.42608E+15	0.60074E-01	0.41205E-03
(1S)	8D2D2.5	0.42627E+15	0.42910E-02	0.29486E-04
(1S)	9D2D1.5	0.52026E+15	0.32273E-01	0.27009E-03
(1S)	9D2D2.5	0.52026E+15	0.23053E-02	0.19335E-04
(1S)	10D2D1.5	0.56600E+15	0.17222E-01	0.16270E-03
(1S)	10D2D2.5	0.56600E+15	0.12301E-02	0.11021E-04
(1S)	11D2D1.5	0.63310E+15	0.12085E-01	0.12334E-03
(1S)	11D2D2.5	0.63310E+15	0.86322E-03	0.88104E-05

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		SF2F3.5	43631.000	4.966	48279.000	1088.778	515.077

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA***2	F	# L VAC
(1S)	3D2D2.5	0.21464E+16	0.34980E+01	0.16139E+00
(1S)	4D2D2.5	0.92261E+15	0.21989E+00	0.43608E-02
(1S)	5D2D2.5	0.30025E+15	0.21519E+03	0.13889E+01
(1S)	6D2D2.5	0.63479E+14	0.29593E+03	0.30285E+00
(1S)	7D2D2.5	0.28518E+15	0.10577E+00	0.48629E-03
(1S)	8D2D2.5	0.42627E+15	0.64365E-01	0.44232E-03
(1S)	9D2D2.5	0.52026E+15	0.34579E-01	0.29003E-03
(1S)	10D2D2.5	0.53600E+15	0.18452E-01	0.17432E-03
(1S)	11D2D2.5	0.63310E+15	0.12948E-01	0.13216E-03

## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		6D2D1.5	44186.000	5.165	48279.000	1551.939	1515.523

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA***2	F	W L VAC
(1S)	3P2P0.5	0.83193E+16	0.49480E-01	0.13273E-01
(1S)	3P2P1.5	0.82982E+16	0.98961E-02	0.13239E-02
(1S)	4P2P0.5	0.21129E+16	0.61972E-01	0.42219E-02
(1S)	4P2P1.5	0.21099E+16	0.12394E-01	0.42158E-03
(1S)	5P2P0.5	0.73368E+15	0.11585E+00	0.27404E-02
(1S)	5P2P1.5	0.73255E+15	0.23169E-01	0.27362E-03
(1S)	4F2F2.5	0.53646E+15	0.31050E-01	0.17903E-03
(1S)	6P2P0.5	0.15672E+15	0.31998E+03	0.16169E+01
(1S)	6P2P1.5	0.15615E+15	0.63995E+02	0.16110E+00
(1S)	5F2F2.5	0.63102E+14	0.41430E+03	0.28098E+00
(1S)	7P2P0.5	0.14353E+15	0.17853E+03	0.41311E+00
(1S)	7P2P1.5	0.14391E+15	0.35706E+02	0.82840E-01
(1S)	6F2F2.5	0.19364E+15	0.47089E+03	0.14700E+01
(1S)	7F2F2.5	0.34829E+15	0.31815E+02	0.17864E+00

## INTERACTIONS -- QUADRUPOLE -

0.22097E+16	0.51124E+06
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## 16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		7S2S0.5	44273.000	5.232	48279.000	1887.657	1837.292

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	3P2P0.5	0.83395E+16	0.20655E-01	0.27789E-02	0.2258713E+04
(1S)	3P2P1.5	0.83184E+16	0.41309E-01	0.27699E-02	0.2264441E+04
(1S)	4P2P0.5	0.21330E+16	0.24693E+00	0.84915E-02	0.8830801E+04
(1S)	4P2P1.5	0.21300E+16	0.49587E+00	0.84795E-02	0.8843293E+04
(1S)	5P2P0.5	0.75384E+15	0.26103E+01	0.31722E-01	0.2498750E+05
(1S)	5P2P1.5	0.75271E+15	0.52205E+01	0.31675E-01	0.2502502E+05
(1S)	6P2P0.5	0.17687E+15	0.18546E+03	0.52884E+00	0.1064962E+06
(1S)	6P2P1.5	0.17631E+15	0.37093E+03	0.52715E+00	0.1068376E+06
(1S)	7P2P0.5	0.12338E+15	0.42409E+03	0.84354E+00	0.1526717E+06
(1S)	7P2P1.5	0.12376E+15	0.84818E+03	0.16922E+01	0.1522070E+06

## 17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		6F2F2.5	45194.000	5.963	48279.000	2537.885	1141.430

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	3D2D1.5	0.24034E+16	0.13388E+01	0.77809E-01	0.7837602E+04
(1S)	3D2D2.5	0.24032E+16	0.95630E-01	0.37049E-02	0.7838219E+04
(1S)	4D2D1.5	0.11801E+16	0.30760E+00	0.10490E-01	0.1598169E+05
(1S)	4D2D2.5	0.11794E+16	0.26257E-01	0.49923E-03	0.1597189E+05
(1S)	5D2D1.5	0.55775E+15	0.61342E+01	0.82735E-01	0.3577237E+05
(1S)	5D2D2.5	0.55700E+15	0.43810E+00	0.39344E-02	0.3381806E+05
(1S)	6D2D1.5	0.19364E+15	0.31393E+03	0.14700E+01	0.9727625E+05
(1S)	6D2D2.5	0.19326E+15	0.22424E+02	0.69865E-01	0.9740557E+05
(1S)	7D2D1.5	0.28255E+14	0.74156E+03	0.33779E+00	0.6668666E+06
(1S)	7D2D2.5	0.28443E+14	0.52969E+02	0.24289E-01	0.6622516E+06
(1S)	8D2D1.5	0.16934E+15	0.14524E+01	0.39650E-02	0.1112347E+06
(1S)	8D2D2.5	0.16953E+15	0.10374E+00	0.28353E-03	0.1111111E+06
(1S)	9D2D1.5	0.26352E+15	0.35172E+00	0.14943E-02	0.7147962E+05
(1S)	9D2D2.5	0.26352E+15	0.25123E-01	0.10673E-03	0.7147962E+05
(1S)	10D2D1.5	0.32926E+15	0.12857E+00	0.63250E-03	0.5720823E+05
(1S)	10D2D2.5	0.32926E+15	0.91839E-02	0.48750E-04	0.5720823E+05
(1S)	11D2D1.5	0.37635E+15	0.71613E-01	0.43450E-03	0.5005005E+05
(1S)	11D2D2.5	0.37635E+15	0.51153E-02	0.31036E-04	0.5005005E+05

## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		7D2D1.5	45344.000	6.114	48279.000	3174.846	2670.791

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	W L VAC
(1S)	3P2P0.5	0.85412E+16	0.36658E-01	0.2205363L+04
(1S)	3P2P1.5	0.85201E+16	0.73330E-02	0.2210824E+04
(1S)	4P2P0.5	0.23348E+16	0.10016L+00	0.8067706E+04
(1S)	4P2P1.5	0.23318E+16	0.20032E-01	0.8078125E+04
(1S)	5P2P0.5	0.95558E+15	0.13064E+00	0.1971220E+05
(1S)	5P2P1.5	0.95445E+15	0.26128E-01	0.1973554E+05
(1S)	4F2F2.5	0.75836E+15	0.32657E-02	0.2483855E+05
(1S)	6P2P0.5	0.37861E+15	0.41681E-01	0.4975124E+05
(1S)	6P2P1.5	0.37805E+15	0.83363E-02	0.4982561E+05
(1S)	5F2F2.5	0.28500E+15	0.14808E+00	0.6609381E+05
(1S)	7P2P0.5	0.78360E+14	0.71696E+03	0.2403846E+06
(1S)	7P2P1.5	0.77983E+14	0.14379E+03	0.2413459E+06
(1S)	6F2F2.5	0.28255E+14	0.11123E+04	0.6666666E+06
(1S)	7F2F2.5	0.12639E+15	0.69517E+03	0.1490312E+06

## INTERACTIONS -- QUADRUPOLE -

0.24316E+16	0.17927E+07
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## 19 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		7F2F2.5	46015.000	6.960	48279.000	5019.547	2209.198

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	W L VAC
(1S)	3D2D1.5	0.25580E+16	0.69299E+00	0.7363770E+04
(1S)	3D2D2.5	0.25578E+16	0.49493E-01	0.7364312E+04
(1S)	4D2D1.5	0.13348E+16	0.25681E+00	0.1411233E+05
(1S)	4D2D2.5	0.13340E+16	0.18344E-01	0.1412030E+05
(1S)	5D2D1.5	0.71240E+15	0.97527E+00	0.2644104E+05
(1S)	5D2D2.5	0.71164E+15	0.69603E-01	0.2646903E+05
(1S)	6D2D1.5	0.34829E+15	0.21210E+02	0.5408329E+05
(1S)	6D2D2.5	0.34791E+15	0.15150E+01	0.5414185E+05
(1S)	7D2D1.5	0.12639E+15	0.46345E+03	0.1490312E+06
(1S)	7D2D2.5	0.12620E+15	0.33103E+02	0.1492537E+06
(1S)	8D2D1.5	0.14692E+14	0.15677E+04	0.1282051E+07
(1S)	8D2D2.5	0.14881E+14	0.11198E+03	0.1285822E+07
(1S)	9D2D1.5	0.10888E+15	0.61341E+01	0.1730104E+06
(1S)	9D2D2.5	0.10888E+15	0.43815E+00	0.1730104E+06
(1S)	10D2D1.5	0.17461E+15	0.10577E+01	0.1078748E+06
(1S)	10D2D2.5	0.17461E+15	0.75548E-01	0.1078748E+06
(1S)	11D2D1.5	0.22171E+15	0.40694E+00	0.8496175E+05
(1S)	11D2D2.5	0.22171E+15	0.29067E-01	0.8496175E+05

PARENT INFORMATION NO. DESIG LIMIT  
1 (2P) 65743.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2P) 3P3P0.0	0.0	77.15	223.31
2	(2P) 3P1D2.0	6293.81		
3	(2P) 3P1S0.0	15394.24		
4	(2P) 4S3P0.0	39683.10	39760.20	39955.12
5	(2P) 4S1P1.0	40991.74		
6	(2P) 3D3D1.0	45276.20	45293.60	45321.86
7	(2P) 4P1P1.0	47284.20		
8	(2P) 3D1D2.0	47351.50		
9	(2P) 4P3D1.0	48020.00	48102.38	48264.35
10	(2P) 4P3P0.0	49028.17	49060.55	49188.61
11	(2P) 4P3S1.0	49399.66		
12	(2P) 3D3F2.0	49850.93	49934.12	50071.88
13	(2P) 4P1D2.0	50189.43		
14	(2P) 3D3P0.0	50602.15	50565.95	50499.44
15	(2P) 4P1S0.0	51611.77		
16	(2P) 3D1F3.0	53362.41		
17	(2P) 3D1P1.0	53387.17		
18	(2P) 4D3D1.0	54184.97	54205.12	54257.40
19	(2P) 5S3P0.0	54244.56	54313.90	54527.88
20	(2P) 5S1P1.0	54870.99		
21	(2P) 5P1P1.0	56425.10		
22	(2P) 4D1D2.0	56503.00		
23	(2P) 4D3P0.0	56733.24	56700.84	56690.94
24	(2P) 5P3D1.0	56978.00	57017.26	57197.94
25	(2P) 5P3P0.0	57295.76	57328.64	57468.18
26	(2P) 4D3F2.0	57372.44	57450.70	57583.85
27	(2P) 5P3S1.0	57541.86		
28	(2P) 5P1D2.0	57797.82		
29	(2P) 5P1S0.0	58311.19		
30	(2P) 4F1F3.0	58774.18		
31	(2P) 4F3F2.0	58775.44	58766.80	58789.00
32	(2P) 4D1P1.0	58802.00		
33	(2P) 4D1F3.0	58893.28		
34	(2P) 4F3G3.0	59035.15	59037.00	59053.84
35	(2P) 5D3D1.0	59056.70	59032.42	59118.51
36	(2P) 4F3D1.0	59190.40	59190.84	59109.75
37	(2P) 4F1D2.0	59110.91		
38	(2P) 6S3P0.0	59220.76	59273.28	59506.17
39	(2P) 6S1P1.0	59636.34		
40	(2P) 5D3P0.0	60042.48	60010.10	59917.35
41	(2P) 5D1D2.0	60259.92		
42	(2P) 5D3F2.0	60645.49	60705.90	60849.13
43	(2P) 5F1D2.0	61303.28		
44	(2P) 5F3F2.0	61304.50	61304.86	61306.57
45	(2P) 5D1P1.0	61308.32		

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## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
46	(2P) 6D3D1.0	61510.71	61423.93	61575.80
47	(2P) 5D1F3.0	61424.00		
48	(2P) 7S3P0.0	61540.00	61594.80	61623.44
49	(2P) 5F3G3.0	61562.37	61563.75	61563.75
50	(2P) 5F3D1.0	61598.60	61597.90	61597.12
51	(2P) 6D3P0.0	61970.28	61936.86	61845.96
52	(2P) 7S1P1.0	61881.50		
53	(2P) 6D1G2.0	62155.20		
54	(2P) 6D3F2.0	62349.27	62376.68	62534.46
55	(2P) 6F3F2.0	62668.50	62668.50	62668.50
56	(2P) 8S3P0.0	62753.05	62800.95	62923.75
57	(2P) 6D1F3.0	62802.00		
58	(2P) 7D3D1.0	62873.90	62875.18	62936.30
59	(2P) 8S1P1.0	63130.60		
60	(2P) 7D3F2.0	63257.61	63353.70	63580.63
61	(2P) 7D1F3.0	63642.55		
62	(2P) 8D3D1.0	63758.35	63758.35	63758.35
63	(2P) 9S1P1.0	63884.95		

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	*	3P3P0.0	0.0	1.293	65743.000	2.482	1.198

INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	L VAC
(2P)	433P1.0	0.74694E+16	0.25132E+00	0.30345E-01	0.2515073E+04
(2P)	3D3D1.0	0.85245E+16	0.57354E+00	0.78856E-01	0.2208666E+04
(2P)	3D3P1.0	0.95249E+16	0.16116E+00	0.24746E-01	0.1977615E+04
(2P)	4D3D1.0	0.10207E+17	0.71427E-01	0.11753E-01	0.1845530E+04
(2P)	5S3P1.0	0.10231E+17	0.35701E-01	0.58884E-02	0.1841149E+04
(2P)	4D3P1.0	0.10680E+17	0.12252E-01	0.21095E-02	0.1763642E+04
(2P)	5D3D1.0	0.11124E+17	0.45847E-01	0.32222E-02	0.1693268E+04
(2P)	6S3P1.0	0.11165E+17	0.12751E-01	0.22952E-02	0.1687101E+04
(2P)	5D3P1.0	0.11304E+17	0.71121E-05	0.12961E-05	0.1666386E+04
(2P)	6D3D1.0	0.11566E+17	0.19544E-01	0.36506E-02	0.1625733E+04
(2P)	7S3P1.0	0.11602E+17	0.52955E-02	0.99051E-03	0.1623513E+04
(2P)	6D3P1.0	0.11667E+17	0.17697E-03	0.33662E-04	0.1614547E+04
(2P)	8S3P1.0	0.11831E+17	0.40236E-02	0.76743E-03	0.1592130E+04
(2P)	7D3D1.0	0.11843E+17	0.46019E-02	0.87865E-03	0.1590485E+04
(2P)	8D3D1.0	0.12010E+17	0.63570E-05	0.12308E-05	0.1568422E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	*	JP3P1.0	77.150	1.293	65743.000	2.482	1.198

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		W	RAA**2	F	W L VAC
(2P)	453P0.0	0.74604E+16	0.83774E-01	0.10076E-01	0.2524873E+04
(2P)	453P1.0	0.74749E+16	0.62827E-01	0.75710E-02	0.2519968E+04
(2P)	453P2.0	0.75116E+16	0.10472E+00	0.12681E-01	0.2507650E+04
(2P)	303J1.0	0.65135E+16	0.14338E+00	0.19080E-01	0.2412436E+04
(2P)	303J2.0	0.65174E+16	0.43014E+00	0.59063E-01	0.2211564E+04
(2P)	303P0.0	0.95171E+16	0.53719E-01	0.82421E-02	0.1979218E+04
(2P)	303P1.0	0.95103E+16	0.40287E-01	0.61768E-02	0.1980637E+04
(2P)	303P2.0	0.94978E+16	0.67149E-01	0.10282E-01	0.1783250E+04
(2P)	403J1.0	0.10192E+17	0.17857E-01	0.29340E-02	0.1848162E+04
(2P)	403J2.0	0.10196E+17	0.53570E-01	0.38053E-02	0.1847474E+04
(2P)	553P0.0	0.10203E+17	0.11903E-01	0.19575E-02	0.1846126E+04
(2P)	553P1.0	0.10216E+17	0.69248E-02	0.14097E-02	0.1843768E+04
(2P)	553P2.0	0.10257E+17	0.14076E-01	0.24597E-02	0.1830523E+04
(2P)	403PJ.0	0.10074E+17	0.40639E-02	0.70262E-03	0.1765035E+04
(2P)	403P1.0	0.10666E+17	0.30627E-02	0.52604E-03	0.1766045E+04
(2P)	403P2.0	0.10664E+17	0.51049E-02	0.87763E-03	0.1766354E+04
(2P)	503J1.0	0.11110E+17	0.11462E-01	0.20520E-02	0.1695503E+04
(2P)	503J2.0	0.11105E+17	0.34385E-01	0.61560E-02	0.1690201E+04
(2P)	653P0.0	0.11141E+17	0.42504E-02	0.76338E-03	0.1690800E+04
(2P)	653P1.0	0.11150E+17	0.31676E-02	0.57301E-03	0.1689300E+04
(2P)	653P2.0	0.11194E+17	0.53130E-02	0.95864E-03	0.1682679E+04
(2P)	503PJ.0	0.11298E+17	0.23707E-05	0.43170E-06	0.1607630E+04
(2P)	503P1.0	0.11239E+17	0.17779E-05	0.32358E-06	0.1666531E+04
(2P)	503P2.0	0.11272E+17	0.29634E-05	0.53851E-06	0.1671117E+04
(2P)	603J1.0	0.11574E+17	0.48859E-02	0.91149E-03	0.1627775E+04
(2P)	603J2.0	0.11558E+17	0.14655E-01	0.27300E-02	0.1630077E+04
(2P)	753P0.0	0.11577E+17	0.17652E-02	0.32946E-03	0.1620999E+04
(2P)	753P1.0	0.11588E+17	0.13238E-02	0.24730E-03	0.1625550E+04
(2P)	753P2.0	0.11631E+17	0.22005E-02	0.41373E-03	0.1619531E+04
(2P)	603PJ.0	0.11659E+17	0.59658E-04	0.11213E-04	0.1615688E+04
(2P)	603P1.0	0.11652E+17	0.44741E-04	0.84046E-05	0.1616501E+04
(2P)	603P2.0	0.11635E+17	0.74573E-04	0.13988E-04	0.1618940E+04
(2P)	853P0.0	0.11808E+17	0.13412E-02	0.25527E-03	0.1595510E+04
(2P)	853P1.0	0.11810E+17	0.10058E-02	0.19101E-03	0.1594068E+04
(2P)	853P2.0	0.11838E+17	0.16705E-02	0.31996E-03	0.1591176E+04
(2P)	703J1.0	0.11829E+17	0.11505E-02	0.21939E-03	0.1592439E+04
(2P)	703J2.0	0.11824E+17	0.34514E-02	0.65819E-03	0.1592406E+04
(2P)	803J1.0	0.11995E+17	0.15892E-05	0.30733E-06	0.1570322E+04
(2P)	803J2.0	0.11995E+17	0.47676E-05	0.92197E-06	0.1570322E+04

INTERACTIONS -- QUADRUPOLE -

0.10784E+17	0.63933E+00
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3 - SEQ. NUM.

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P) * 3P3P2.0	2d3.310	1.293	65743.000	2.4d2	1.198

INTERACTIONS -- DIPOLE -

DESIGNATION	#	RAA**2	F	W L VAC
(2P) 4S3P1.0	0.74474E+16	0.62831E-01	0.75436E-02	0.2529283E+04
(2P) 4S3P2.0	0.74841E+16	0.18849E+00	0.22742E-01	0.2516875E+04
(2P) 3D3D1.0	0.64804E+16	0.57354E-02	0.78467E-03	0.2217061E+04
(2P) 3D3D2.0	0.64847E+16	0.86030E-01	0.11774E-01	0.2218755E+04
(2P) 3D3D3.0	0.64950E+16	0.48177E+00	0.65779E-01	0.2217366E+04
(2P) 3D3P1.0	0.94928E+16	0.40289E-01	0.61593E-02	0.1986388E+04
(2P) 3D3P2.0	0.94703E+16	0.12087E+00	0.18453E-01	0.1989015E+04
(2P) 4D3D1.0	0.10164E+17	0.71428E-03	0.11705E-03	0.1853168E+04
(2P) 4D3D2.0	0.10108E+17	0.10714E-01	0.17563E-02	0.1852476E+04
(2P) 4D3D3.0	0.10174E+17	0.59999E-01	0.98450E-02	0.1850684E+04
(2P) 5S3P1.0	0.10189E+17	0.89254E-02	0.14661E-02	0.1848750E+04
(2P) 5S3P2.0	0.10229E+17	0.26770E-01	0.44156E-02	0.1841466E+04
(2P) 4D3P1.0	0.10638E+17	0.30629E-02	0.52531E-03	0.1770616E+04
(2P) 4D3P2.0	0.10637E+17	0.91867E-02	0.15756E-02	0.1770926E+04
(2P) 5D3D1.0	0.11082E+17	0.45646E-03	0.81912E-04	0.1699715E+04
(2P) 5D3D2.0	0.11078E+17	0.68770E-02	0.12281E-02	0.1700417E+04
(2P) 5D3D3.0	0.11094E+17	0.38512E-01	0.68678E-02	0.1697931E+04
(2P) 6S3P1.0	0.11123E+17	0.31878E-02	0.57163E-03	0.1693481E+04
(2P) 6S3P2.0	0.11167E+17	0.95634E-02	0.17217E-02	0.1686828E+04
(2P) 5D3P1.0	0.11262E+17	0.17780E-05	0.32231E-06	0.1672610E+04
(2P) 5D3P2.0	0.11244E+17	0.53341E-05	0.96693E-06	0.1675209E+04
(2P) 6D3D1.0	0.11544E+17	0.19544E-03	0.36374E-04	0.1631657E+04
(2P) 6D3D2.0	0.11528E+17	0.29315E-02	0.54482E-03	0.1633970E+04
(2P) 6D3D3.0	0.11557E+17	0.16417E-01	0.30536E-02	0.1629926E+04
(2P) 7S3P1.0	0.11580E+17	0.13239E-02	0.24673E-03	0.1629421E+04
(2P) 7S3P2.0	0.11603E+17	0.39717E-02	0.74295E-03	0.1623373E+04
(2P) 6D3P1.0	0.11625E+17	0.44744E-04	0.83853E-05	0.1620390E+04
(2P) 6D3P2.0	0.11608E+17	0.13423E-03	0.25119E-04	0.1622780E+04
(2P) 8S3P1.0	0.11789E+17	0.10059E-02	0.19118E-03	0.1597811E+04
(2P) 8S3P2.0	0.11811E+17	0.30177E-02	0.57458E-03	0.1594885E+04
(2P) 7D3D1.0	0.11801E+17	0.46020E-04	0.87553E-05	0.1596154E+04
(2P) 7D3D2.0	0.11801E+17	0.69029E-03	0.13133E-03	0.1596122E+04
(2P) 7D3D3.0	0.11813E+17	0.36650E-02	0.73618E-03	0.1594566E+04
(2P) 8D3D2.0	0.11968E+17	0.95353E-06	0.18397E-06	0.1573935E+04
(2P) 8D3D3.0	0.11968E+17	0.53398E-05	0.10303E-05	0.1573935E+04

INTERACTIONS -- QUADRUPOLE -

0.10757E+17	0.76940E+00
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4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)	*	3P102.0	6298.809	1.358	65743.000	3.510	1.235

INTERACTIONS -- DIPOLE --					
DESIGNATION	W	RAA***2	F	W	L VAC
(2P)	4S1P1.0	0.65349E+16	0.36946E+00	0.38923E-01	0.2882432E+04
(2P)	3D1J2.0	0.77329E+16	0.19221E+00	0.23961E-01	0.2435694E+04
(2P)	3D1F3.0	0.88651E+16	0.38755E+00	0.55388E-01	0.2124784E+04
(2P)	3D1P1.0	0.88698E+16	0.45224E-02	0.64668E-03	0.2123667E+04
(2P)	5S1P1.0	0.91493E+16	0.46987E-01	0.69305E-02	0.2058792E+04
(2P)	4D1J2.0	0.94567E+16	0.60261E-02	0.91872E-03	0.1991865E+04
(2P)	4D1P1.0	0.93898E+16	0.16433E-02	0.26200E-03	0.1904640E+04
(2P)	4D1F3.0	0.99070E+16	0.12273E+00	0.19601E-01	0.1901340E+04
(2P)	6S1P1.0	0.10047E+17	0.15359E-01	0.24677E-02	0.1874852E+04
(2P)	5D1J2.0	0.10172E+17	0.14192E-02	0.23273E-03	0.1851813E+04
(2P)	5D1P1.0	0.10362E+17	0.77349E-03	0.12921E-03	0.1817807E+04
(2P)	5D1F3.0	0.10384E+17	0.50769E-01	0.84968E-02	0.1814052E+04
(2P)	7S1P1.0	0.10470E+17	0.49316E-02	0.33239E-03	0.1799121E+04
(2P)	6D1J2.0	0.10521E+17	0.71809E-03	0.12180E-03	0.1790305E+04
(2P)	6D1F3.0	0.10643E+17	0.21609E-01	0.37078E-02	0.1769812E+04
(2P)	8S1P1.0	0.10705E+17	0.38059E-03	0.65662E-04	0.1759578E+04
(2P)	7D1F3.0	0.10802E+17	0.66409E-02	0.11564E-02	0.1743869E+04
(2P)	9S1P1.0	0.10847E+17	0.11028E-02	0.19284E-03	0.1736529E+04

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)	*	3P150.0	15374.238	1.476	65743.000	5.958	2.708

INTERACTIONS -- DIPOLE --					
DESIGNATION	W	RAA***2	F	W	L VAC
(2P)	4S1P1.0	0.48217E+16	0.93410E+00	0.72614E-01	0.3905631E+04
(2P)	3D1P1.0	0.71565E+16	0.11094E+01	0.12799E+00	0.2632068E+04
(2P)	5S1P1.0	0.74360E+16	0.96057E-01	0.11515E-01	0.2533136E+04
(2P)	4D1P1.0	0.81705E+16	0.35843E+00	0.47248E-01	0.2305735E+04
(2P)	6S1P1.0	0.83337E+16	0.33131E-01	0.44512E-02	0.2260290E+04
(2P)	5D1P1.0	0.80486E+16	0.10102E+00	0.22451E-01	0.2177981E+04
(2P)	7S1P1.0	0.87566E+16	0.12974E-01	0.18316E-02	0.2151127E+04
(2P)	8S1P1.0	0.89919E+16	0.26191E-02	0.37967E-03	0.2094839E+04
(2P)	9S1P1.0	0.91340E+16	0.52383E-03	0.77136E-04	0.2062250E+04

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4S3P0.0	39683.102	2.059	65743.000	47.009	41.550

INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P3P1.0	0.74604E+16	0.25132E+00	0.10076E-01	0.2524873E+04
(2P) 4P3D1.0	0.15704E+16	0.23219E+02	0.53783E+00	0.1199467E+05
(2P) 4P3P1.0	0.17664E+16	0.13204E+02	0.37601E+00	0.1066388E+05
(2P) 4P3S1.0	0.18303E+16	0.43069E+01	0.12708E+00	0.1029171E+05
(2P) 5P3D1.0	0.32578E+16	0.19301E+00	0.10137E-01	0.5782051E+04
(2P) 5P3P1.0	0.33238E+16	0.26281E+00	0.14083E-01	0.5667152E+04
(2P) 5P3S1.0	0.33640E+16	0.11269E+00	0.61112E-02	0.5599492E+04

7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4S3P1.0	39700.199	2.059	65743.000	47.009	41.549

INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P3P0.0	0.74894E+16	0.83774E-01	0.30345E-01	0.2515078E+04
(2P) * 3P3P1.0	0.74749E+16	0.62827E-01	0.75710E-02	0.2519968E+04
(2P) * 3P3P2.0	0.74474E+16	0.10472E+00	0.75436E-02	0.2529283E+04
(2P) 4P3D1.0	0.15559E+16	0.58047E+01	0.14560E+00	0.1210683E+05
(2P) 4P3D2.0	0.15714E+16	0.17414E+02	0.44115E+00	0.1198727E+05
(2P) 4P3P0.0	0.17458E+16	0.44014E+01	0.12387E+00	0.1078984E+05
(2P) 4P3P1.0	0.17519E+16	0.33008E+01	0.93224E-01	0.1075228E+05
(2P) 4P3P2.0	0.17760E+16	0.55017E+01	0.15752E+00	0.1060624E+05
(2P) 4P3S1.0	0.18157E+16	0.43068E+01	0.12607E+00	0.1037402E+05
(2P) 5P3D1.0	0.32432E+16	0.48252E-01	0.25229E-02	0.5807941E+04
(2P) 5P3D2.0	0.32506E+16	0.14475E+00	0.75858E-02	0.5794727E+04
(2P) 5P3P0.0	0.33031E+16	0.87604E-01	0.46650E-02	0.5702695E+04
(2P) 5P3P1.0	0.33093E+16	0.65700E-01	0.35051E-02	0.5692023E+04
(2P) 5P3P2.0	0.33356E+16	0.10951E+00	0.58886E-02	0.5647168E+04
(2P) 5P3S1.0	0.33494E+16	0.11266E+00	0.60847E-02	0.5623770E+04

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8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		453P2.0	39955.121	2.059	65743.000	47.009	41.550

INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P3P1.0	0.75116E+16	0.62831E-01	0.12681E-01	0.2507650E+04
(2P) * 3P3P2.0	0.74841E+16	0.18849E+00	0.22742E-01	0.2516875E+04
(2P) * 4P3D1.0	0.15191E+16	0.23219E+00	0.56366E-02	0.1239744E+05
(2P) * 4P3D2.0	0.15347E+16	0.34828E+01	0.86168E-01	0.1227407E+05
(2P) * 4P3D3.0	0.15652E+16	0.19504E+02	0.49214E+00	0.1203481E+05
(2P) * 4P3P1.0	0.17151E+16	0.33010E+01	0.91276E-01	0.1098246E+05
(2P) * 4P3P2.0	0.17393E+16	0.99031E+01	0.27768E+00	0.1083014E+05
(2P) * 4P3S1.0	0.17790E+16	0.43069E+01	0.12352E+00	0.1058813E+05
(2P) * 5P3D1.0	0.32065E+16	0.19301E-02	0.99773E-04	0.5874445E+04
(2P) * 5P3D2.0	0.32139E+16	0.28951E-01	0.15000E-02	0.5860926E+04
(2P) * 5P3D3.0	0.32479E+16	0.16213E+00	0.84892E-02	0.5799512E+04
(2P) * 5P3P1.0	0.32726E+16	0.65704E-01	0.34664E-02	0.5755883E+04
(2P) * 5P3P2.0	0.32988E+16	0.19711E+00	0.10483E-01	0.5710023E+04
(2P) * 5P3S1.0	0.33127E+16	0.11269E+00	0.60181E-02	0.5686102E+04

9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		451P1.0	40991.738	2.105	65743.000	51.304	44.021

INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P1D2.0	0.65349E+16	0.61576E+00	0.38923E-01	0.2882432E+04
(2P) * 3P1S0.0	0.48217E+16	0.31139E+00	0.72614E-01	0.3906631E+04
(2P) * 4P1P1.0	0.11853E+16	0.15551E+02	0.29716E+00	0.1569203E+05
(2P) * 4P1D2.0	0.17325E+16	0.22853E+02	0.63831E+00	0.1087229E+05
(2P) * 4P1S0.0	0.20004E+16	0.30988E+01	0.11929E+00	0.9416168E+04
(2P) * 5P1P1.0	0.29071E+16	0.86082E-01	0.40344E-02	0.6479409E+04
(2P) * 5P1D2.0	0.31657E+16	0.67399E+00	0.34398E-01	0.5950227E+04
(2P) * 5P1S0.0	0.32624E+16	0.23041E+00	0.12118E-01	0.5773852E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		3P3D1.0	45276.199	2.316	65743.000	21.401	13.374

## INTERACTIONS --- DIPOLE -

DESIGNATION	M	RAA**2	F	# L VAC
(2P) * 3P3P0.0	0.85285E+16	0.19116E+00	0.78856E-01	0.2208666E+04
(2P) * 3P3P1.0	0.85139E+16	0.14338E+00	0.19680E-01	0.2212436E+04
(2P) * 3P3P2.0	0.84864E+16	0.95590E-02	0.78467E-03	0.2219614E+04
(2P) 4P3D1.0	0.51684E+15	0.15058E+01	0.12547E-01	0.3644579E+05
(2P) 4P3D2.0	0.53235E+15	0.50194E+00	0.43078E-02	0.3538349E+05
(2P) 4P3P0.0	0.70674E+15	0.30463E+01	0.34709E-01	0.2665264E+05
(2P) 4P3P1.0	0.71284E+15	0.22847E+01	0.26256E-01	0.2642461E+05
(2P) 4P3P2.0	0.73696E+15	0.15232E+00	0.18096E-02	0.2555969E+05
(2P) 5P3D1.0	0.22042E+16	0.44450E-01	0.15796E-02	0.8545691E+04
(2P) 5P3D2.0	0.22116E+16	0.14817E-01	0.52829E-03	0.8517113E+04
(2P) 5P3P0.0	0.22641E+16	0.13660E+00	0.49860E-02	0.8319770E+04
(2P) 5P3P1.0	0.22703E+16	0.10245E+00	0.37497E-02	0.8297070E+04
(2P) 5P3P2.0	0.22965E+16	0.68302E-02	0.25288E-03	0.8202109E+04
(2P) 4F3F2.0	0.25426E+16	0.32657E+01	0.13387E+00	0.7407820E+04
(2P) 4F3D1.0	0.29210E+16	0.10971E+00	0.46354E-02	0.7186902E+04
(2P) 4F3D2.0	0.26210E+16	0.36569E-01	0.15452E-02	0.7186672E+04
(2P) 5F3F2.0	0.30192E+16	0.11985E+01	0.58333E-01	0.6238961E+04
(2P) 5F3D1.0	0.30746E+16	0.31712E-01	0.15719E-02	0.6126547E+04
(2P) 5F3D2.0	0.30744E+16	0.10571E-01	0.52394E-03	0.6126812E+04
(2P) 6F3F2.0	0.32761E+16	0.58123E+00	0.30698E-01	0.5749668E+04

## INTERACTIONS --- QUADRUPOLE -

0.34814E+16	0.46512E+03
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## 11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		3D3D2.0	45293.602	2.316	65743.000	21.461	13.374

INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P3P1.0	0.65172E+16	0.25809E+00	0.59063E-01	0.22115E4E+04
(2P) * 3P3P2.0	0.84697E+16	0.86030E-01	0.11774E-01	0.2216756E+04
(2P) 4P3D1.0	0.51356E+15	0.30116E+00	0.24934E-02	0.3667842E+05
(2P) 4P3D2.0	0.52908E+15	0.13942E+01	0.11892E-01	0.3560268E+05
(2P) 4P3D3.0	0.55959E+15	0.31232E+00	0.26175E-02	0.3366153E+05
(2P) 4P3P1.0	0.70956E+15	0.41124E+01	0.47043E-01	0.2654666E+05
(2P) 4P3P2.0	0.73368E+15	0.13708E+01	0.16214E-01	0.2567369E+05
(2P) 5P3D1.0	0.22009E+16	0.88902E-02	0.31544E-03	0.8558418E+04
(2P) 5P3D2.0	0.22083E+16	0.41157E-01	0.14652E-02	0.8529758E+04
(2P) 5P3D3.0	0.22424E+16	0.92194E-02	0.33328E-03	0.8400297E+04
(2P) 5P3P1.0	0.22670E+16	0.18441E+00	0.67397E-02	0.8309070E+04
(2P) 5P3P2.0	0.22933E+16	0.61471E-01	0.22726E-02	0.8213936E+04
(2P) 4F3F2.0	0.25395E+16	0.36265E+00	0.14855E-01	0.7417363E+04
(2P) 4F3F3.0	0.25416E+16	0.29027E+01	0.11894E+00	0.7411141E+04
(2P) 4F3D1.0	0.26177E+16	0.21941E-01	0.92593E-03	0.7195902E+04
(2P) 4F3D2.0	0.26178E+16	0.10158E+00	0.42867E-02	0.7195672E+04
(2P) 4F3D3.0	0.26025E+16	0.22754E-01	0.95465E-03	0.7237906E+04
(2P) 5F3F2.0	0.30159E+16	0.13316E+00	0.64744E-02	0.6245742E+04
(2P) 5F3F3.0	0.30160E+16	0.10653E+01	0.51795E-01	0.6245605E+04
(2P) 5F3D1.0	0.30713E+16	0.63425E-02	0.31404E-03	0.6133086E+04
(2P) 5F3D2.0	0.30712E+16	0.29362E-01	0.14536E-02	0.6133352E+04
(2P) 5F3D3.0	0.30710E+16	0.65774E-02	0.32564E-03	0.6133645E+04
(2P) 6F3F2.0	0.32728E+16	0.64581E-01	0.34074E-02	0.5755426E+04
(2P) 6F3F3.0	0.32728E+16	0.51664E+00	0.27259E-01	0.5755426E+04

## INTERACTIONS -- QUADRUPOLE --

0.34781E+16	0.10942E+03
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## 12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		3D30J.0	45321.859	2.316	65743.000	21.461	13.374

INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P3P2.0	0.84950E+16	0.34412E+00	0.65979E-01	0.2217366E+04
(2P) 4P3D2.0	0.52375E+15	0.22308E+00	0.18836E-02	0.3596450E+05
(2P) 4P3U3.0	0.55420E+15	0.17847E+01	0.15947E-01	0.3398480E+05
(2P) 4P3P2.0	0.72830E+15	0.54633E+01	0.64387E-01	0.2506151E+05
(2P) 5P3D2.0	0.22030E+16	0.65653E-02	0.23388E-03	0.6550367E+04
(2P) 5P3U3.0	0.22370E+16	0.52682E-01	0.18999E-02	0.8420285E+04
(2P) 5P3P2.0	0.22879E+16	0.24588E+00	0.90694E-02	0.8232945E+04
(2P) 4F3F2.0	0.25342E+16	0.74052E-02	0.30254E-03	0.7432901E+04
(2P) 4F3F3.0	0.25363E+16	0.25918E+00	0.10598E-01	0.7420691E+04
(2P) 4F3F4.0	0.25367E+16	0.29991E+01	0.12265E-00	0.7425480E+04
(2P) 4F3D2.0	0.26124E+16	0.16253E-01	0.68450E-03	0.7210332E+04
(2P) 4F3D3.0	0.25972E+16	0.13002E+00	0.54439E-02	0.7252738E+04
(2P) 5F3F2.0	0.30106E+16	0.27170E-02	0.13190E-03	0.6236705E+04
(2P) 5F3F3.0	0.30106E+16	0.95115E-01	0.46165E-02	0.6256545E+04
(2P) 5F3F4.0	0.30110E+16	0.11006E+01	0.53426E-01	0.6255377E+04
(2P) 5F3D2.0	0.30658E+16	0.46981E-02	0.23221E-03	0.6144000E+04
(2P) 5F3D3.0	0.30657E+16	0.37585E-01	0.18576E-02	0.6144293E+04
(2P) 6F3F2.0	0.32675E+16	0.13180E-02	0.69428E-04	0.5764805E+04
(2P) 6F3F3.0	0.32675E+16	0.46129E-01	0.24299E-02	0.5764805E+04
(2P) 6F3F4.0	0.32675E+16	0.53378E+00	0.28118E-01	0.5764805E+04

## INTERACTIONS -- QUADRUPOLE --

0.34728E+16	0.25413E+03
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## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		3D1D2.0	47331.500	2.442	65743.000	34.430	21.153

INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P1D2.0	0.77329E+16	0.19221E+00	0.23961E-01	0.2435694E+04
(2P) 4P1P1.0	0.12677E+14	0.10520E+02	0.35832E-02	0.1485866E+07
(2P) 4P1D2.0	0.53457E+15	0.25005E+01	0.21549E-01	0.3523695E+05
(2P) 5P1P1.0	0.17092E+16	0.89113E-02	0.24554E-03	0.1102098E+05
(2P) 5P1D2.0	0.19677E+16	0.41909E-01	0.13295E-02	0.9572746E+04
(2P) 4F1F3.0	0.21516E+16	0.71745E+01	0.24887E+00	0.6754512E+04
(2P) 4F1D2.0	0.22151E+16	0.43114E+00	0.15390E-01	0.8503824E+04
(2P) 5F1D2.0	0.26280E+16	0.28374E+00	0.12021E-01	0.7167543E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P3U1.0	48020.000	2.498	65743.000	81.654	77.868
INTERACTIONS -- DIPOLE --							
DESIGNATION		N	RAA**2	F		M L VAC	
(2P)	453P0.0	0.15704E+16	0.77397E+01	0.58763E+00	0.1199487E+05		
(2P)	453P1.0	0.15559E+16	0.56047E+01	0.14560E+00	0.1210683E+05		
(2P)	453P2.0	0.15191E+16	0.38699E+00	0.56866E-02	0.1239944E+05		
(2P)	303U1.0	0.51084E+15	0.15058E+01	0.12547E-01	0.3644579E+05		
(2P)	303U2.0	0.51356E+15	0.50194E+00	0.24934E-02	0.3667842E+05		
(2P)	303F2.0	0.34488E+15	0.31024E+02	0.17249E+00	0.5461706E+05		
(2P)	303P0.0	0.45639E+15	0.22580E+00	0.17705E-02	0.3672744E+05		
(2P)	303P1.0	0.47957E+15	0.16935E+00	0.13093E-02	0.3927808E+05		
(2P)	303P2.0	0.46704E+15	0.11290E-01	0.85005E-04	0.4033166E+05		
(2P)	403D1.0	0.11613E+16	0.57376E+01	0.10742E+00	0.1622068E+05		
(2P)	403D2.0	0.11651E+16	0.19125E+01	0.35922E-01	0.1616783E+05		
(2P)	553P0.0	0.11725E+16	0.55690E+01	0.10564E+00	0.1606534E+05		
(2P)	553P1.0	0.11856E+16	0.41917E+01	0.80115E-01	0.1583840E+05		
(2P)	553P2.0	0.12259E+16	0.27945E+00	0.55227E-02	0.1536599E+05		
(2P)	403P0.0	0.16413E+16	0.12645E+00	0.33459E-02	0.1147679E+05		
(2P)	403P1.0	0.16352E+16	0.94838E-01	0.25001E-02	0.1151962E+05		
(2P)	403P2.0	0.16333E+16	0.63226E-02	0.16648E-03	0.1153277E+05		
(2P)	403F2.0	0.17617E+16	0.92415E+01	0.26247E+00	0.1059239E+05		
(2P)	503D1.0	0.20789E+16	0.11369E-01	0.38102E-03	0.9050680E+04		
(2P)	503D2.0	0.20744E+16	0.37896E-02	0.12673E-03	0.9080652E+04		
(2P)	653P0.0	0.21098E+16	0.37839E+00	0.12871E-01	0.8927961E+04		
(2P)	653P1.0	0.21197E+16	0.28379E+00	0.969d1E-02	0.8686297E+04		
(2P)	653P2.0	0.21636E+16	0.18920E-01	0.65993E-03	0.8706117E+04		
(2P)	503P0.0	0.22646E+16	0.14134E-01	0.51603E-03	0.8317750E+04		
(2P)	503P1.0	0.22585E+16	0.10601E-01	0.38598E-03	0.8340211E+04		
(2P)	503P2.0	0.22410E+16	0.70673E-03	0.25533E-04	0.8405230E+04		
(2P)	503F2.0	0.23782E+16	0.16345E+01	0.62668E-01	0.7920484E+04		
(2P)	603D1.0	0.25412E+16	0.89559E-03	0.36690E-04	0.7412504E+04		
(2P)	603D2.0	0.25246E+16	0.29853E-03	0.12151E-04	0.7460496E+04		
(2P)	753P0.0	0.25467E+16	0.11567E+00	0.47469E-02	0.7396449E+04		
(2P)	753P1.0	0.25570E+16	0.86751E-01	0.35761E-02	0.7355590E+04		
(2P)	753P2.0	0.26001E+16	0.57634E-02	0.24243E-03	0.7244566E+04		
(2P)	603P0.0	0.26277E+16	0.32638E-02	0.13026E-03	0.7108312E+04		
(2P)	603P1.0	0.26215E+16	0.24478E-02	0.10345E-03	0.7185527E+04		
(2P)	603P2.0	0.26043E+16	0.16319E-03	0.68517E-05	0.7232770E+04		
(2P)	603F2.0	0.26991E+16	0.48535E+00	0.21119E-01	0.6978723E+04		
(2P)	853P0.0	0.27752E+16	0.56174E-01	0.25132E-02	0.6787457E+04		
(2P)	853P1.0	0.27857E+16	0.42130E-01	0.18921E-02	0.6761805E+04		
(2P)	853P2.0	0.28073E+16	0.28087E-02	0.12712E-03	0.6709719E+04		
(2P)	703D1.0	0.27980E+16	0.81892E-02	0.36939E-03	0.6732238E+04		
(2P)	703D2.0	0.27982E+16	0.27298E-02	0.12314E-03	0.6731656E+04		
(2P)	703F2.0	0.28702E+16	0.12320E+00	0.57006E-02	0.6562707E+04		
(2P)	803D1.0	0.29646E+16	0.20231E-01	0.96692E-03	0.6353902E+04		
(2P)	803D2.0	0.29646E+16	0.67439E-02	0.32231E-03	0.6353902E+04		

## INTERACTIONS -- QUADRUPOLE --

0.16948E+16      0.34507E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P3D2.0	*8102.379	2.498	65743.000	81.654	77.866

## INTERACTIONS -- DIPOLE --

DESIGNATION	#	RAA**2	F	W L VAC
(2P)	4S3P1.0	0.15714E+16	0.10448E+02	0.44115E+00
(2P)	4S3P2.0	0.15347E+16	0.34828E+01	0.86168E-01
(2P)	3D3D1.0	0.53235E+15	0.30116E+00	0.43078E-02
(2P)	3D3D2.0	0.52908E+15	0.13942E+01	0.11692E-01
(2P)	3D3D3.0	0.52375E+15	0.31232E+00	0.18836E-02
(2P)	3D3F2.0	0.32957E+15	0.34471E+01	0.18303E-01
(2P)	3D3F3.0	0.34504E+15	0.27576E+02	0.15339E+00
(2P)	3D3P1.0	0.46405E+15	0.30462E+00	0.22604E-02
(2P)	3D3P2.0	0.45152E+15	0.10161E+00	0.73962E-03
(2P)	4D3D1.0	0.11457E+16	0.11475E+01	0.21196E-01
(2P)	4D3D2.0	0.11495E+16	0.53125E+01	0.98452E-01
(2P)	4D3D3.0	0.11594E+16	0.11900E+01	0.22243E-01
(2P)	5S3P1.0	0.11700E+16	0.75450E+01	0.14232E+00
(2P)	5S3P2.0	0.12103E+16	0.25150E+01	0.49074E-01
(2P)	4D3P1.0	0.16197E+16	0.17071E+00	0.44574E-02
(2P)	4D3P2.0	0.16178E+16	0.56903E-01	0.14841E-02
(2P)	4D3F2.0	0.17462E+16	0.10268E+01	0.28906E-01
(2P)	4D3F3.0	0.17009E+16	0.62145E+01	0.23319E+00
(2P)	5D3D1.0	0.20034E+16	0.22737E-02	0.75036E-04
(2P)	5D3D2.0	0.20585E+16	0.10520E-01	0.34938E-03
(2P)	5D3D3.0	0.20751E+16	0.23579E-02	0.78850E-04
(2P)	6S3P1.0	0.21042E+16	0.51082E+00	0.17349E-01
(2P)	6S3P2.0	0.21481E+16	0.17026E+00	0.58967E-02
(2P)	5D3P1.0	0.22430E+16	0.19081E-01	0.68978E-03
(2P)	5D3P2.0	0.22255E+16	0.63604E-02	0.22620E-03
(2P)	5D3F2.0	0.23627E+16	0.18161E+00	0.69176E-02
(2P)	5D3F3.0	0.23741E+16	0.14524E+01	0.55607E-01
(2P)	6D3D1.0	0.25257E+16	0.17912E-03	0.72933E-05
(2P)	6D3D2.0	0.25093E+16	0.82923E-03	0.33545E-04
(2P)	6D3D3.0	0.25379E+16	0.18575E-03	0.76001E-05
(2P)	7S3P1.0	0.25415E+16	0.15015E+00	0.63979E-02
(2P)	7S3P2.0	0.25846E+16	0.52050E-01	0.21688E-02
(2P)	6D3P1.0	0.26054E+16	0.44061E-02	0.18511E-03
(2P)	6D3P2.0	0.25868E+16	0.14687E-02	0.61297E-04
(2P)	6D3F2.0	0.26836E+16	0.53927E-01	0.23331E-02
(2P)	6D3F3.0	0.26886E+16	0.43141E+00	0.18700E-01
(2P)	8S3P1.0	0.27702E+16	0.75834E-01	0.33867E-02
(2P)	8S3P2.0	0.27918E+16	0.25278E-01	0.11377E-02
(2P)	7D3D1.0	0.27824E+16	0.1379E-02	0.73469E-04
(2P)	7D3D2.0	0.27827E+16	0.75824E-02	0.34015E-03
(2P)	7D3D3.0	0.27942E+16	0.16985E-02	0.70512E-04
(2P)	7D3F2.0	0.28547E+16	0.13688E-01	0.62997E-03
(2P)	7D3F3.0	0.28728E+16	0.10951E+00	0.50717E-02
(2P)	8D3D1.0	0.29490E+16	0.40463E-02	0.19237E-03
(2P)	8D3D2.0	0.29490E+16	0.18732E-01	0.89059E-03
(2P)	8D3D3.0	0.29490E+16	0.41962E-02	0.19950E-03

## INTERACTIONS --- QUADRUPOLE ---

0.16793E+16	0.66817E+03
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PR EE DESIG (2P) 4P3D3.0	LEVEL 48264.352	N EFF 2.498	S. LIMIT 65743.000	RAA**2 81.654	S. RAA***2 77.668
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INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 453P2.0	0.15652E+16	0.13931E+02	0.49214E+00	0.1203481E+05
(2P) 3D3D2.0	0.55959E+15	0.22308E+00	0.28175E-02	0.3366153E+05
(2P) 3D3D3.0	0.55426E+15	0.17847E+01	0.15947E-01	0.3358480E+05
(2P) 3D3F2.0	0.29886E+15	0.70350E-01	0.33894E-03	0.6502873E+05
(2P) 3D3F3.0	0.31453E+15	0.24622E+01	0.12485E-01	0.55988850E+05
(2P) 3D3F4.0	0.34047E+15	0.28491E+02	0.15639E+00	0.5532420E+05
(2P) 3D3P2.0	0.42101E+15	0.40643E+00	0.27586E-02	0.4474093E+05
(2P) 4D3D2.0	0.11190E+16	0.85002E+00	0.15335E-01	0.1683284E+05
(2P) 4D3D3.0	0.11289E+16	0.68001E+01	0.12376E+00	0.1668600E+05
(2P) 5S3P2.0	0.11798E+16	0.10060E+02	0.19135E+00	0.1596544E+05
(2P) 4D3P2.0	0.15873E+16	0.22761E+00	0.58244E-02	0.1186720E+05
(2P) 4D3F2.0	0.17156E+16	0.20956E-01	0.57961E-03	0.1097925E+05
(2P) 4D3F3.0	0.17304E+16	0.73345E+00	0.20460E-01	0.1088572E+05
(2P) 4D3F4.0	0.17555E+16	0.84671E+01	0.24019E+00	0.1073019E+05
(2P) 5D3D2.0	0.20263E+16	0.16842E-02	0.55074E-04	0.9266715E+04
(2P) 5D3D3.0	0.20445E+16	0.13474E-01	0.44411E-03	0.9213055E+04
(2P) 6S3P2.0	0.21176E+16	0.68111E+00	0.23252E-01	0.8895355E+04
(2P) 5D3P2.0	0.21950E+16	0.25442E-01	0.90031E-03	0.8581460E+04
(2P) 5D3F2.0	0.23322E+16	0.37065E-02	0.13936E-03	0.8076601E+04
(2P) 5D3F3.0	0.23436E+16	0.12972E+00	0.49012E-02	0.8037582E+04
(2P) 5D3F4.0	0.23705E+16	0.15011E+01	0.57367E-01	0.7946105E+04
(2P) 6D3D2.0	0.24788E+16	0.13268E-03	0.53022E-05	0.7599047E+04
(2P) 6D3D3.0	0.25074E+16	0.10614E-02	0.42906E-04	0.7512328E+04
(2P) 7S3P2.0	0.25341E+16	0.20820E+00	0.85728E-02	0.7375125E+04
(2P) 6D3P2.0	0.25583E+16	0.55748E-02	0.24230E-03	0.7362895E+04
(2P) 6D3F2.0	0.26531E+16	0.11006E-02	0.47073E-04	0.7099769E+04
(2P) 6D3F3.0	0.26583E+16	0.36519E-01	0.16507E-02	0.7086000E+04
(2P) 6D3F4.0	0.26860E+16	0.44573E+00	0.19315E-01	0.7007652E+04
(2P) 8S3P2.0	0.27613E+16	0.10111E+00	0.45012E-02	0.6821559E+04
(2P) 7D3D2.0	0.27522E+16	0.12132E-02	0.53830E-04	0.6644238E+04
(2P) 7D3D3.0	0.27637E+16	0.97057E-02	0.43243E-03	0.6815727E+04
(2P) 7D3F2.0	0.28242E+16	0.27936E-03	0.12719E-04	0.6669004E+04
(2P) 7D3F3.0	0.28423E+16	0.97779E-02	0.44802E-03	0.6627191E+04
(2P) 7D3F4.0	0.28851E+16	0.11314E+00	0.52623E-02	0.6529000E+04
(2P) 8D3D2.0	0.29185E+16	0.29973E-02	0.14102E-03	0.6454109E+04
(2P) 8D3D3.0	0.29185E+16	0.23978E-01	0.11282E-02	0.6454109E+04

## INTERACTIONS -- QUADRUPOLE --

0.16487E+16	0.26855E+04
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ORIGINAL PAGE IS  
OF POOR QUALITY

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P1S0.0	51611.770	2.786	65743.000	131.169	121.776

INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 4S1P1.0	0.20004E+16	0.11097E+02	0.11929E+00	0.9416168E+04
(2P) 3D1P1.0	0.33442E+15	0.66954E+02	0.36098E+00	0.5632526E+05
(2P) 5S1P1.0	0.61392E+15	0.26831E+02	0.28535E+00	0.3064220E+05
(2P) 4D1P1.0	0.13544E+16	0.11063E+02	0.24156E+00	0.1390776E+05
(2P) 6S1P1.0	0.15115E+16	0.64083E+00	0.15616E-01	0.1240172E+05
(2P) 5D1P1.0	0.16265E+16	0.28127E+01	0.82823E-01	0.1031295E+05
(2P) 7S1P1.0	0.19345E+16	0.22427E+00	0.69942E-02	0.9737352E+04
(2P) 6D1P1.0	0.21697E+16	0.11504E+00	0.40241E-02	0.6681434E+04
(2P) 9S1P1.0	0.23118E+16	0.37967E-01	0.14150E-02	0.8147848E+04

18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		3D1P1.0	53387.172	2.979	65743.000	121.539	99.466

INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2P) * 3P1D2.0	0.68698E+16	0.75374E-02	0.64668E-03	0.2123667E+04
(2P) * 3P1S0.0	0.71565E+16	0.36979E+00	0.12799E+00	0.2632068E+04
(2P) 4P1P1.0	0.11496E+16	0.12060E+02	0.22350E+00	0.1638546E+05
(2P) 4P1D2.0	0.60234E+15	0.10437E+01	0.60808E-02	0.3127206E+05
(2P) 4P1S0.0	0.33442E+15	0.22318E+02	0.36098E+00	0.5632526E+05
(2P) 5P1P1.0	0.57224E+15	0.78002E+01	0.71959E-01	0.3291715E+05
(2P) 5P1D2.0	0.83081E+15	0.16387E+00	0.21948E-02	0.2267240E+05
(2P) 5P1S0.0	0.92751E+15	0.14268E+01	0.21334E-01	0.2030801E+05
(2P) 4F1D2.0	0.10762E+16	0.47822E+02	0.83121E+00	0.1747110E+05
(2P) 5F1D2.0	0.14911E+16	0.64565E+01	0.15521E+00	0.1263246E+05

INTERACTIONS -- QUADRUPOLE --

0.14921E+16	0.17620E+04
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19 - SEQ. NUM.

PR EE	DES.G	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	551P1.0	54870.988	3.176	65743.000	259.468	241.784

INTERACTIONS -- DIPOLE --					
DESIGNATION	#	RAA**2	F	# L VAC	
(2P) * 3P102.0	0.91473E+16	0.78311E-01	0.69305E-02	0.2058792E+04	
(2P) * 3P150.0	0.74360E+16	0.32019E-01	0.11515E-01	0.2533136E+04	
(2P) 4P1P1.0	0.14291E+16	0.54858E+01	0.12593E+00	0.1318080E+05	
(2P) 4P1J2.0	0.88184E+15	0.29236E+02	0.24938E+00	0.2138041E+05	
(2P) 4P150.0	0.61392E+15	0.96103E+01	0.28535E+00	0.3068220E+05	
(2P) 5P1P1.0	0.29274E+15	0.78646E+02	0.37116E+00	0.6434537E+05	
(2P) 5P102.0	0.55131E+15	0.10274E+03	0.91311E+00	0.3416663E+05	
(2P) 5P150.0	0.64801E+15	0.15981E+02	0.16695E+00	0.2906805E+05	

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P) SP3D1.0	56978.000	3.501	65743.000	370.280	345.248

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 4S3P0.0	0.32578E+16	0.64336E-01	0.10137E-01	0.5782051E+04
(2P) 4S3P1.0	0.32432E+16	0.48252E-01	0.25229E-02	0.5807341E+04
(2P) 4S3P2.0	0.32065E+16	0.32168E-02	0.99773E-04	0.5874445E+04
(2P) 3D3D1.0	0.22042E+16	0.44450E-01	0.15790E-02	0.6545691E+04
(2P) 3D3D2.0	0.22009E+16	0.14817E-01	0.31544E-03	0.8553418E+04
(2P) 3D3F2.0	0.13425E+16	0.50720E+00	0.65863E-02	0.1403101E+05
(2P) 3D3P0.0	0.12010E+16	0.73364E-02	0.42613E-03	0.1568418E+05
(2P) 3D3P1.0	0.12078E+16	0.55023E-02	0.10714E-03	0.1559563E+05
(2P) 3D3P2.0	0.12203E+16	0.36682E-03	0.43300E-05	0.1543553E+05
(2P) 4D3D1.0	0.52511E+15	0.41341E+01	0.35064E-01	0.3580339E+05
(2P) 4D3D2.0	0.52231E+15	0.13780E+01	0.09622E-02	0.3600360E+05
(2P) 5S3P0.0	0.51498E+15	0.36107E+02	0.89914E+00	0.3658418E+05
(2P) 5S3P1.0	0.50182E+15	0.27080E+02	0.21908E+00	0.3753611E+05
(2P) 5S3P2.0	0.46152E+15	0.18054E+01	0.80595E-02	0.4081431E+05
(2P) 4D3P0.0	0.45105E+14	0.80554E+00	0.17962E-02	0.4085606E+06
(2P) 4D3P1.0	0.52207E+14	0.60415E+00	0.50849E-03	0.3608022E+06
(2P) 4D3P2.0	0.54072E+14	0.40277E-01	0.21066E-04	0.3483609E+06
(2P) 4D3F2.0	0.74299E+14	0.16210E+03	0.19417E+00	0.2535231E+06
(2P) 5D3D1.0	0.39155E+15	0.23981E+02	0.15138E+00	0.4810701E+05
(2P) 5D3D2.0	0.38698E+15	0.79937E+01	0.49870E-01	0.4867549E+05
(2P) 6S3P0.0	0.42246E+15	0.26249E+02	0.17877E+00	0.4458788E+05
(2P) 6S3P1.0	0.43235E+15	0.19667E+02	0.13722E+00	0.4356754E+05
(2P) 6S3P2.0	0.47622E+15	0.13125E+01	0.10076E-01	0.3955427E+05
(2P) 5D3P0.0	0.57724E+15	0.69320E+00	0.64509E-02	0.3263196E+05
(2P) 5D3P1.0	0.57114E+15	0.51990E+00	0.47870E-02	0.3298042E+05
(2P) 5D3P2.0	0.55367E+15	0.34660E-01	0.30938E-03	0.3402111E+05
(2P) 5D3F2.0	0.69063E+15	0.22294E+02	0.24829E+00	0.2726662E+05
(2P) 6D3D1.0	0.85380E+15	0.17120E+00	0.23564E-02	0.2206165E+05
(2P) 6D3D2.0	0.83746E+15	0.57066E-01	0.77044E-03	0.2249248E+05
(2P) 7S3P0.0	0.85932E+15	0.14303E+01	0.19815E-01	0.2192021E+05
(2P) 7S3P1.0	0.85764E+15	0.18728E+01	0.15040E-01	0.2168002E+05
(2P) 7S3P2.0	0.91271E+15	0.71518E-01	0.10523E-02	0.2063795E+05
(2P) 6D3P0.0	0.94037E+15	0.48572E-01	0.73636E-03	0.2003092E+05
(2P) 6D3P1.0	0.93406E+15	0.36429E-01	0.54857E-03	0.2016593E+05
(2P) 6D3P2.0	0.91695E+15	0.24286E-02	0.35901E-04	0.2054248E+05
(2P) 6D3F2.0	0.10118E+16	0.32541E+01	0.53077E-01	0.1861757E+05
(2P) 8S3P0.0	0.10878E+16	0.39508E+00	0.69286E-02	0.1731566E+05
(2P) 8S3P1.0	0.10983E+16	0.29631E+00	0.52467E-02	0.1714966E+05
(2P) 8S3P2.0	0.11200E+16	0.19754E-01	0.35667E-03	0.1681873E+05
(2P) 7D3D1.0	0.11106E+16	0.11397E+00	0.20405E-02	0.1696094E+05
(2P) 7D3D2.0	0.11106E+16	0.37989E-01	0.68032E-03	0.1695726E+05
(2P) 7D3F2.0	0.11829E+16	0.54014E+00	0.10300E-01	0.1592455E+05
(2P) 8D3D1.0	0.12772E+16	0.14095E+00	0.29022E-02	0.1474850E+05
(2P) 8D3D2.0	0.12772E+16	0.46985E-01	0.96742E-03	0.1474850E+05

## INTERACTIONS -- QUADRUPOLE --

0.16874E+16	0.38959E+05
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PR	EE	JESIG	LEVEL	N EFF	G <sub>2</sub> LIMIT	RAA**2	S. RAA**2
(2P)		5P3P2.0	57408.180	3.626	65743.000	399.421	403.309

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	L VAC
(2P) 453P1.0	0.33350E+16	0.65704E-01	0.58890E-02	0.5047168E+04
(2P) 453P2.0	0.33908E+16	0.19711E+00	0.10403E-01	0.5710023E+04
(2P) 303D1.0	0.22105E+16	0.40981E-02	0.25208E-03	0.8402109E+04
(2P) 303D2.0	0.22933E+16	0.61471E-01	0.22726E-02	0.8213030E+04
(2P) 303D3.0	0.22079E+16	0.34424E+00	0.90694E-02	0.8232945E+04
(2P) 303P1.0	0.13001E+16	0.38364E-01	0.13402E-02	0.1446807E+05
(2P) 303P2.0	0.13127E+16	0.11509E+00	0.24356E-02	0.1434980E+05
(2P) 403U1.0	0.61044E+15	0.22589E+00	0.37204E-02	0.3045798E+05
(2P) 403U2.0	0.61465E+15	0.33583E+01	0.33277E-01	0.3064609E+05
(2P) 403D3.0	0.60400E+15	0.10807E+02	0.13098E+00	0.3114507E+05
(2P) 553P1.0	0.59416E+15	0.14921E+02	0.23021E+00	0.3170294E+05
(2P) 553P2.0	0.55305E+15	0.44763E+02	0.39909E+00	0.3401012E+05
(2P) 403P1.0	0.14454E+15	0.85319E+01	0.33135E-01	0.1303203E+06
(2P) 403P2.0	0.14040E+15	0.25596E+02	0.60412E-01	0.1266606E+06
(2P) 503D1.0	0.29922E+15	0.17857E+01	0.80142E-02	0.60295170E+05
(2P) 503D2.0	0.29465E+15	0.20786E+02	0.12724E+00	0.6392872E+05
(2P) 503D3.0	0.31086E+15	0.15000E+03	0.75175E+00	0.6059367E+05
(2P) 653P1.0	0.34002E+15	0.15544E+02	0.85204E-01	0.5539854E+05
(2P) 653P2.0	0.38389E+15	0.46631E+02	0.28839E+00	0.4906790E+05
(2P) 503P1.0	0.47881E+15	0.97572E+01	0.75317E-01	0.3934031E+05
(2P) 503P2.0	0.46134E+15	0.29271E+02	0.21770E+00	0.4003012E+05
(2P) 603D1.0	0.70147E+15	0.17532E-02	0.21522E-04	0.2473697E+05
(2P) 603D2.0	0.74513E+15	0.20298E-01	0.31540E-03	0.2527965E+05
(2P) 603D3.0	0.77373E+15	0.14727E+00	0.18370E-02	0.2434497E+05
(2P) 753P1.0	0.77731E+15	0.67437E+00	0.84508E-02	0.2423290E+05
(2P) 753P2.0	0.82038E+15	0.20231E+01	0.26757E-01	0.2296073E+05
(2P) 603P1.0	0.84174E+15	0.47286E+00	0.64167E-02	0.2237797E+05
(2P) 603P2.0	0.82462E+15	0.14180E+01	0.10858E-01	0.2284202E+05
(2P) 853P1.0	0.10060E+16	0.16584E+00	0.26097E-02	0.1872369E+05
(2P) 853P2.0	0.10276E+16	0.49752E+00	0.82425E-02	0.1832989E+05
(2P) 703D1.0	0.10102E+16	0.34417E-02	0.50497E-04	0.1849893E+05
(2P) 703D2.0	0.10185E+16	0.51024E-01	0.84705E-03	0.1847454E+05
(2P) 703D3.0	0.10300E+16	0.20910E+00	0.48005E-02	0.1828702E+05
(2P) 803D1.0	0.11840E+16	0.81691E-02	0.15604E-03	0.1589782E+05
(2P) 803D2.0	0.11840E+16	0.12253E+00	0.23406E-02	0.1569782E+05
(2P) 803D3.0	0.11848E+16	0.68620E+00	0.13107E-01	0.1589782E+05

## INTERACTIONS -- QUADRUPOLE --

0.10825E+17	0.94460E+04
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## 22 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		5P1D2.0	57797.820	3.715	65743.000	441.877	415.536
INTERACTIONS -- DIPOLE -							
DESIGNATION			RAA***2	F		W L VAC	
(2P)	4S1P1.0	0.31657E+16	0.40440E+00	0.34358E-01		0.5950227E+04	
(2P)	301D2.0	0.19077E+16	0.41909E-01	0.13295E-02		0.9572746E+04	
(2P)	301F3.0	0.83548E+15	0.80589E+01	0.77533E-01		0.2254583E+05	
(2P)	301P1.0	0.83081E+15	0.98319E-01	0.21948E-02		0.2267240E+05	
(2P)	5S1P1.0	0.55131E+15	0.81641E+02	0.91311E+00		0.3410665E+05	
(2P)	401D2.0	0.24390E+15	0.16269E+02	0.03972E-01		0.7723075E+05	
(2P)	401P1.0	0.18915E+15	0.26014E+01	0.81157E-02		0.9958375E+05	
(2P)	401F3.0	0.20035E+15	0.22496E+03	0.74634E+00		0.9126575E+05	
(2P)	6S1P1.0	0.34631E+15	0.70306E+02	0.39252E+00		0.5439159E+05	
(2P)	501D2.0	0.47131E+15	0.22096E+02	0.17399E+00		0.3996640E+05	
(2P)	501P1.0	0.66126E+15	0.82528E-01	0.87978E-03		0.2848597E+05	
(2P)	501F3.0	0.68805E+15	0.23672E+01	0.26067E-01		0.2757723E+05	
(2P)	7S1P1.0	0.76922E+15	0.28413E+01	0.35235E-01		0.2448772E+05	
(2P)	601D2.0	0.82070E+15	0.16420E+01	0.21727E-01		0.2294957E+05	
(2P)	601F3.0	0.94261E+15	0.37584E+00	0.57113E-02		0.1998329E+05	
(2P)	8S1P1.0	0.10045E+16	0.73814E+00	0.11954E-01		0.1875194E+05	
(2P)	701F3.0	0.11009E+16	0.62796E-05	0.11146E-06		0.1710943E+05	
(2P)	9S1P1.0	0.11466E+16	0.15519E+00	0.28687E-02		0.1642811E+05	

## 23 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		4F1F3.0	58774.180	3.967	65743.000	344.595	142.199
INTERACTIONS -- DIPOLE -							
DESIGNATION			RAA***2	F		W L VAC	
(2P)	301D2.0	0.21516E+16	0.51247E+01	0.24887E+00		0.8754512E+04	
(2P)	301F3.0	0.10194E+16	0.50764E+01	0.83425E-01		0.1847824E+05	
(2P)	401D2.0	0.42781E+15	0.91663E+02	0.88507E+00		0.4402998E+05	
(2P)	401F3.0	0.22435E+14	0.10925E+02	0.39514E-02		0.8396195E+06	
(2P)	501D2.0	0.23740E+15	0.26471E+02	0.13191E+00		0.6554181E+05	
(2P)	501F3.0	0.49913E+15	0.35287E-01	0.28394E-03		0.3773641E+05	
(2P)	601D2.0	0.63687E+15	0.90151E+00	0.92560E-02		0.2957687E+05	
(2P)	601F3.0	0.75870E+15	0.39643E-03	0.48488E-05		0.2482732E+05	
(2P)	701F3.0	0.91703E+15	0.11028E-02	0.16304E-04		0.2054075E+05	

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4F3F2.0	58775.441	3.970	65743.000	346.024	153.283

# INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2P)	3D3D1.0	0.25428E+16	0.19594E+01	0.13387E+00
(2P)	3D3D2.0	0.25395E+16	0.36285E+00	0.14855E-01
(2P)	3D3D3.0	0.25342E+16	0.10367E-01	0.30254E-03
(2P)	3D3F2.0	0.16811E+16	0.14276E+01	0.38690E-01
(2P)	3D3F3.0	0.16654E+16	0.17645E+00	0.34223E-02
(2P)	4D3D1.0	0.66468E+15	0.44273E+02	0.10286E+01
(2P)	4D3D2.0	0.86069E+15	0.81986E+01	0.11379E+00
(2P)	4D3D3.0	0.85104E+15	0.23425E+00	0.22957E-02
(2P)	4D3F2.0	0.26428E+15	0.11417E+02	0.48644E-01
(2P)	4D3F3.0	0.24954E+15	0.14272E+01	0.41010E-02
(2P)	5D3D1.0	0.52979E+14	0.68986E+02	0.58921E-01
(2P)	5D3D2.0	0.48406E+14	0.12775E+02	0.99694E-02
(2P)	5D3D3.0	0.64622E+14	0.36501E+00	0.38027E-03
(2P)	5D3F2.0	0.35225E+15	0.12696E+01	0.73245E-02
(2P)	5D3F3.0	0.36363E+15	0.16123E+00	0.94516E-03
(2P)	6D3D1.0	0.51523E+15	0.47657E-01	0.39585E-03
(2P)	6D3D2.0	0.49888E+15	0.88254E-02	0.70980E-04
(2P)	6D3D3.0	0.52749E+15	0.25216E-03	0.21443E-05
(2P)	6D3F2.0	0.67318E+15	0.62488E-01	0.67817E-03
(2P)	6D3F3.0	0.67835E+15	0.78112E-02	0.85422E-04
(2P)	7D3D1.0	0.77201E+15	0.16817E-01	0.20930E-03
(2P)	7D3D2.0	0.77225E+15	0.31142E-02	0.38771E-04
(2P)	7D3D3.0	0.73376E+15	0.88979E-04	0.11243E-05
(2P)	7D3F2.0	0.64428E+15	0.81131E-02	0.11043E-03
(2P)	7D3F3.0	0.86238E+15	0.10141E-02	0.14100E-04
(2P)	8D3D1.0	0.93361E+15	0.50615E-01	0.76588E-03
(2P)	8D3D2.0	0.93861E+15	0.93730E-02	0.14183E-03
(2P)	8D3D3.0	0.93861E+15	0.26780E-03	0.40523E-05

# INTERACTIONS -- QUADRUPOLE --

0.73332E+15	0.74165E+04
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25 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4F3F3.0	56786.801	3.970	65743.000	346.024	153.260

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 3D3D2.0	0.25416E+16	0.20734E+01	0.11694E+00	0.7411141E+04
(2P) 3D3D3.0	0.25363E+16	0.25918E+00	0.10598E+01	0.7426691E+04
(2P) 3D3F2.0	0.16832E+16	0.12747E+00	0.46424E+02	0.1119065E+05
(2P) 3D3F3.0	0.16675E+16	0.13495E+01	0.36279E+01	0.1129001E+05
(2P) 3D3F4.0	0.16416E+16	0.12906E+00	0.26565E+02	0.1147457E+05
(2P) 4D3D2.0	0.86303E+15	0.46849E+02	0.91255E+00	0.2182605E+05
(2P) 4D3D3.0	0.85318E+15	0.58562E+01	0.80549E+01	0.2207796E+05
(2P) 4D3F2.0	0.26642E+15	0.10194E+01	0.61298E+02	0.7070337E+05
(2P) 4D3F3.0	0.25167E+15	0.10793E+02	0.43790E+01	0.7484456E+05
(2P) 4D3F4.0	0.22659E+15	0.10322E+01	0.29326E+02	0.8312900E+05
(2P) 5D3D2.0	0.46266E+14	0.73000E+02	0.54449E+01	0.4071311E+06
(2P) 5D3D3.0	0.62483E+14	0.91251E+01	0.91913E+02	0.3014672E+06
(2P) 5D3F2.0	0.35011E+15	0.11516E+00	0.65001E+03	0.5330140E+05
(2P) 5D3F3.0	0.36149E+15	0.12192E+01	0.71054E+02	0.5210782E+05
(2P) 5D3F4.0	0.36847E+15	0.11660E+00	0.73024E+03	0.4848869E+05
(2P) 6D3D2.0	0.49674E+15	0.50430E+01	0.40385E+03	0.3792002E+05
(2P) 6D3D3.0	0.52535E+15	0.63038E+02	0.53390E+04	0.3585514E+05
(2P) 6D3F2.0	0.67104E+15	0.55794E+02	0.60359E+04	0.2807042E+05
(2P) 6D3F3.0	0.67621E+15	0.59070E+01	0.64395E+03	0.2785609E+05
(2P) 6D3F4.0	0.70593E+15	0.56491E+02	0.64290E+04	0.2668331E+05
(2P) 7D3D2.0	0.77011E+15	0.17795E+01	0.22093E+03	0.2445957E+05
(2P) 7D3D3.0	0.78162E+15	0.22244E+02	0.28030E+04	0.2409929E+05
(2P) 7D3F2.0	0.84214E+15	0.72439E+03	0.98347E+05	0.2236732E+05
(2P) 7D3F3.0	0.86024E+15	0.76692E+02	0.10636E+03	0.2189670E+05
(2P) 7D3F4.0	0.90299E+15	0.73345E+03	0.10677E+04	0.2086015E+05
(2P) 8D3D2.0	0.93647E+15	0.53559E+01	0.80859E+03	0.2011445E+05
(2P) 8D3D3.0	0.93647E+15	0.66950E+02	0.10108E+03	0.2011445E+05

INTERACTIONS -- QUADRUPOLE -

0.73118E+15	0.52067E+05
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		533F2.0	60645.488	4.688	65743.000	1020.730	595.024

INTERACTIONS -- DIPOLE --					
DESIGNATION	W	RAA**2	F	W L VAC	
(2P)	4P3D1.0	0.23762E+16	0.98072E+00	0.62668E-01	0.7920484E+04
(2P)	4P3D2.0	0.23627E+16	0.16161E+00	0.69176E-02	0.7972504E+04
(2P)	4P3D3.0	0.23322E+16	0.51890E-02	0.13936E-03	0.8076801E+04
(2P)	5P3D1.0	0.69063E+15	0.13377E+02	0.24629E+00	0.2726662E+05
(2P)	5P3D2.0	0.66343E+15	0.24771E+01	0.27293E-01	0.2756167E+05
(2P)	5P3D3.0	0.64940E+15	0.70776E-01	0.52926E-03	0.2900613E+05
(2P)	4F3F2.0	0.35225E+15	0.12898E+01	0.73245E-02	0.5347459E+05
(2P)	4F3F3.0	0.35011E+15	0.16123E+00	0.65001E-03	0.5380140E+05
(2P)	4F3G3.0	0.30333E+15	0.29595E+02	0.10338E+00	0.6209869E+05
(2P)	4F3D1.0	0.27409E+15	0.76705E-01	0.56490E-03	0.6872425E+05
(2P)	4F3D2.0	0.27401E+15	0.14205E-01	0.62747E-04	0.6874512E+05
(2P)	4F3D3.0	0.28326E+15	0.40585E-03	0.13519E-05	0.6511526E+05
(2P)	5F3F2.0	0.12413E+15	0.38199E+02	0.76444E-01	0.1517423E+06
(2P)	5F3F3.0	0.12420E+15	0.47749E+01	0.95609E-02	0.1510590E+06
(2P)	5F3G3.0	0.17271E+15	0.50072E+05	0.13942E+01	0.1090652E+06
(2P)	5F3D1.0	0.17953E+15	0.10299E+01	0.29808E-02	0.1049193E+06
(2P)	5F3D2.0	0.17940E+15	0.19072E+00	0.55159E-03	0.1049967E+06
(2P)	5F3D3.0	0.17925E+15	0.54491E-02	0.15747E-04	0.1050825E+06
(2P)	6F3F2.0	0.38106E+15	0.16682E+01	0.10248E-01	0.4943125E+05
(2P)	6F3F3.0	0.38106E+15	0.20853E+00	0.12810E-02	0.4943125E+05

INTERACTIONS -- QUADRUPOLE --

0.20333E+16	0.65305E+05
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## 27 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		5D3F4.0	60849.129	4.688	65743.000	1020.730	595.023

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	4P3D3.0	0.23705E+16	0.11675E+01	0.57367E-01	0.7946105E+04
(2P)	5P3D3.0	0.68776E+15	0.15925E+02	0.22701E+00	0.2738835E+05
(2P)	4F3F3.0	0.38847E+15	0.90691E-01	0.73024E-03	0.4848889E+05
(2P)	4F3F4.0	0.38806E+15	0.13603E+01	0.85103E-02	0.4854065E+05
(2P)	4F3G3.0	0.34169E+15	0.22836E-01	0.16173E-03	0.5512738E+05
(2P)	4F3G4.0	0.34134E+15	0.14387E+01	0.79168E-02	0.5518371E+05
(2P)	4F3G5.0	0.33817E+15	0.28134E+02	0.12549E+00	0.5570134E+05
(2P)	4F3D3.0	0.32764E+15	0.91316E-01	0.62014E-03	0.5749179E+05
(2P)	5F3F3.0	0.85844E+14	0.26859E+01	0.37170E-02	0.2194279E+06
(2P)	5F3F4.0	0.86166E+14	0.40288E+02	0.55964E-01	0.2186072E+06
(2P)	5F3G3.0	0.13435E+15	0.38636E+00	0.83682E-03	0.1402048E+06
(2P)	5F3G4.0	0.13461E+15	0.24340E+02	0.52821E-01	0.1399342E+06
(2P)	5F3G5.0	0.13461E+15	0.47599E+03	0.10329E+01	0.1399342E+06
(2P)	5F3D3.0	0.14090E+15	0.12260E+01	0.27849E-02	0.1336912E+06
(2P)	6F3F3.0	0.34271E+15	0.11730E+00	0.64805E-03	0.5496405E+05
(2P)	6F3F4.0	0.34271E+15	0.17594E+01	0.97206E-02	0.5496405E+05

## INTERACTIONS -- QUADRUPOLE -

0.20717E+16	0.22139E+07
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## 28 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		5F1D2.0	61303.261	4.970	65743.000	1093.615	459.971

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	3D1D2.0	0.26280E+16	0.28374E+00	0.12021E-01	0.7167543E+04
(2P)	3D1F3.0	0.14958E+16	0.20572E-01	0.35434E-03	0.1259307E+05
(2P)	3D1P1.0	0.14911E+16	0.38739E+01	0.15521E+00	0.1263246E+05
(2P)	4D1D2.0	0.90421E+15	0.62986E-01	0.91815E-03	0.2083211E+05
(2P)	4D1P1.0	0.47115E+15	0.71458E+02	0.90462E+00	0.3997951E+05
(2P)	4D1F3.0	0.45396E+15	0.42136E+00	0.22027E-02	0.414977E+05
(2P)	5D1D2.0	0.16900E+15	0.50443E+02	0.15370E+00	0.99665.2E+05
(2P)	5D1P1.0	0.94918E+12	0.31376E+03	0.48012E-02	0.1984496E+08
(2P)	5D1F3.0	0.22739E+14	0.15659E+01	0.57405E-03	0.8283717E+06
(2P)	6D1D2.0	0.16047E+15	0.18082E+02	0.46778E-01	0.1173822E+06
(2P)	6D1F3.0	0.28231E+15	0.94530E-03	0.43022E-05	0.6672362E+05
(2P)	7D1F3.0	0.44064E+15	0.46100E-03	0.32748E-05	0.4274839E+05

29 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		5F3F2.0	61304.500	4.972	65743.000	1094.905	453.955

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	3D3D1.0	0.30192E+16	0.71908E+00	0.58333E-01	0.6238961E+04
(2P)	3D3F2.0	0.30159E+16	0.13316E+00	0.64744E-02	0.6245742E+04
(2P)	3D3D3.0	0.30106E+16	0.38047E-02	0.13190E-03	0.6256785E+04
(2P)	3D3F2.0	0.21575E+16	0.34663E+00	0.12056E-01	0.8730896E+04
(2P)	3D3F3.0	0.21418E+16	0.43329E-01	0.10686E-02	0.8794781E+04
(2P)	4D3D1.0	0.13411E+16	0.27537E+01	0.99226E-01	0.1404587E+05
(2P)	4D3D2.0	0.13373E+16	0.50995E+00	0.10994E-01	0.1408574E+05
(2P)	4D3D3.0	0.13274E+16	0.14570E-01	0.22271E-03	0.1419023E+05
(2P)	4D3F2.0	0.74066E+15	0.10737E+01	0.12821E-01	0.2543197E+05
(2P)	4D3F3.0	0.72392E+15	0.13422E+00	0.11220E-02	0.2594841E+05
(2P)	5D3D1.0	0.42341E+15	0.87067E+02	0.99052E+00	0.4448793E+05
(2P)	5D3D2.0	0.42798E+15	0.16123E+02	0.11125E+00	0.4401257E+05
(2P)	5D3D3.0	0.41176E+15	0.46068E+00	0.21843E-02	0.4574590E+05
(2P)	5D3F2.0	0.12413E+15	0.38199E+02	0.76444E-01	0.1517423E+06
(2P)	5D3F3.0	0.11276E+15	0.47749E+01	0.61998E-02	0.1670560E+06
(2P)	6D3D1.0	0.38843E+14	0.24682E+03	0.15581E+00	0.4849403E+06
(2P)	6D3D2.0	0.22496E+14	0.46078E+02	0.16711E-01	0.8373127E+06
(2P)	6D3D3.0	0.51104E+14	0.13165E+01	0.10346E-02	0.3685946E+06
(2P)	6D3F2.0	0.19680E+15	0.36690E+01	0.11641E-01	0.9571487E+05
(2P)	6D3F3.0	0.20196E+15	0.45864E+00	0.14933E-02	0.9326794E+05
(2P)	7D3D1.0	0.29562E+15	0.32020E+00	0.15549E-02	0.6371868E+05
(2P)	7D3D2.0	0.29506E+15	0.60419E-01	0.28018E-03	0.6366670E+05
(2P)	7D3D3.0	0.30737E+15	0.17263E-02	0.85543E-05	0.6128199E+05
(2P)	7D3F2.0	0.30790E+15	0.14477E+00	0.85863E-03	0.5120041E+05
(2P)	7D3F3.0	0.38600E+15	0.18096E-01	0.11261E-03	0.4879955E+05
(2P)	8D3D1.0	0.46222E+15	0.59065E+00	0.44013E-02	0.4075226E+05
(2P)	8D3D2.0	0.46222E+15	0.10938E+00	0.81505E-03	0.4075226E+05
(2P)	8D3D3.0	0.46222E+15	0.31252E-02	0.23288E-04	0.4075226E+05

INTERACTIONS -- QUADRUPOLE -

0.47639E+15	0.66278E+05
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30 - SEQ. NUM.

PR EE DESIG (2P)	603F3.0	LEVEL 62376.680	N EFF 5.761	S. LIMIT 65743.000	RAA**2 2470.719	S. RAA**2 242.674
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INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	4P3D2.0	0.26888E+16	0.30815E+00	0.18700E-01	0.7003594E+04
(2P)	4P3D3.0	0.26583E+16	0.38519E-01	0.16507E-02	0.7086000E+04
(2P)	5P3D2.0	0.10095E+16	0.20660E+01	0.47075E-01	0.1665874E+05
(2P)	5P3D3.0	0.97549E+15	0.25826E+00	0.40614E-02	0.1930972E+05
(2P)	4F3F2.0	0.67835E+15	0.55794E-02	0.85422E-04	0.2776822E+05
(2P)	4F3F3.0	0.67621E+15	0.59070E-01	0.64395E-03	0.2785609E+05
(2P)	4F3F4.0	0.67579E+15	0.56491E-02	0.47869E-04	0.2787317E+05
(2P)	4F3G3.0	0.62943E+15	0.87354E-01	0.88641E-03	0.2992640E+05
(2P)	4F3G4.0	0.62908E+15	0.13103E+01	0.10336E-01	0.2994299E+05
(2P)	4F3D2.0	0.60010E+15	0.36977E-02	0.50082E-04	0.3138899E+05
(2P)	4F3D3.0	0.61538E+15	0.46221E-03	0.45855E-05	0.3060978E+05
(2P)	5F3F2.0	0.20196E+15	0.32760E+00	0.14933E-02	0.9326794E+05
(2P)	5F3F3.0	0.20189E+15	0.34683E+01	0.11289E-01	0.9329919E+05
(2P)	5F3F4.0	0.20157E+15	0.33169E+00	0.83835E-03	0.9344837E+05
(2P)	5F3G3.0	0.15339E+15	0.81236E+01	0.20088E-01	0.1228036E+06
(2P)	5F3G4.0	0.15313E+15	0.12185E+03	0.23396E+00	0.1230118E+06
(2P)	5F3D2.0	0.14670E+15	0.32067E+00	0.10617E-02	0.1284057E+06
(2P)	5F3D3.0	0.14684E+15	0.40085E-01	0.94693E-04	0.1282777E+06
(2P)	6F3F2.0	0.54969E+14	0.82596E+01	0.73194E-02	0.3426766E+06
(2P)	6F3F3.0	0.54969E+14	0.87445E+02	0.77492E-01	0.3426766E+06
(2P)	6F3F4.0	0.54969E+14	0.83628E+01	0.74109E-02	0.3426766E+06

INTERACTIONS -- QUADRUPOLE --

0.23594E+16	0.24827E+07
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PHOSPHORUS --- 15 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1D)	106518.000
	2	(3P)	88560.000

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS			
1	(3P) 3P4S1.5	0.0			
2	(3P) 3P2D1.5	11361.70	11376.50		
3	(1D) 3P2D1.5	11361.70	11376.50		
4	(3P) 3P2P0.5	18722.40	18748.10		
5	(1D) 3P2P0.5	18722.40	18748.10		
6	(3P) 4S4P0.5	55939.23	56090.59	56339.68	
7	(3P) 4S2P0.5	57876.80	58174.40		
8	(1D) 4S2D1.5	65156.60	65156.60		
9	(3P) 4P4D0.5	65373.60	65450.20	65585.12	65787.31
10	(3P) 4P4P0.5	66343.37	66360.19	66544.12	
11	(3P) 4P2D1.5	66813.12	66870.19		
12	(3P) 4P4S1.5	66834.50			
13	(3P) 4P2P0.5	67971.12	68088.31		
14	(3P) 4P2S0.5	68473.19			
15	(3P) 3D2F2.5	70391.31	70690.00		
16	(3P) 3D4D0.5	70637.50	70637.50	70778.62	70778.62
17	(3P) 3D4P0.5	72571.37	72494.62	72386.62	
18	(3P) 3D2P0.5	72741.87	72883.50		
19	(3P) 3D2D1.5	73248.12	73248.12		
20	(3P) 5S3P0.0	75064.62	75211.31	75533.37	

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)	*	3P4S1.5	0.0	1.113	88560.000	0.0	0.0

INTERACTIONS -- DIPOLE --  
DESIGNATION

RAA\*\*2

F

W L VAC

Table 13. Phosphorus



## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(1D)	*	3P2D1.5	11361.699	1.074	106518.000	0.0	0.0

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
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## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(3P)	*	3P2D1.5	11361.699	1.192	88560.000	0.0	0.0

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
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## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(3P)	*	3P2P0.5	18722.398	1.253	88560.000	1.957	0.429

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC	
(3P)	4S2P0.5	0.73753E+16	0.11248E+00	0.13374E-01	0.2553991E+04
(3P)	4S2P1.5	0.74314E+16	0.56244E-01	0.67383E-02	0.2534726E+04
(3P)	3D2P0.5	0.10175E+17	0.42140E-01	0.69127E-02	0.1851184E+04
(3P)	3D2P1.5	0.10202E+17	0.21071E-01	0.34655E-02	0.1846344E+04
(3P)	3D2D1.5	0.10271E+17	0.17685E+00	0.29282E-01	0.1833997E+04
(3P)	5S3P0.0	0.10613E+17	0.32420E-02	0.55470E-03	0.1774868E+04
(3P)	5S3P1.0	0.10641E+17	0.16078E-01	0.27580E-02	0.1770259E+04
(3P)	5S3P2.0	0.10701E+17	0.91896E-03	0.15854E-03	0.1760223E+04

## INTERACTIONS -- QUADRUPOLE --

0.92968E+16	0.72744E+00
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## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(1D)	*	3P2P1.5	18748.102	1.118	106518.000	0.0	0.0

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
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## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)	+	3P2P1.5	18749.102	1.253	88560.000	1.957	0.433

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(3P)	4S2P0.5	0.73705E+16	0.28122E-01	0.33415E-02
(3P)	4S2P1.5	0.74265E+16	0.14061E+00	0.16834E-01
(3P)	3D2P0.5	0.10171E+17	0.10535E-01	0.17274E-02
(3P)	3D2P1.5	0.10197E+17	0.52676E-01	0.86596E-02
(3P)	3D2J1.5	0.10266E+17	0.17685E-01	0.29268E-02
(3P)	3D2J2.5	0.10266E+17	0.15916E+00	0.26341E-01
(3P)	5S3P0.0	0.10608E+17	0.10421E-01	0.17822E-02
(3P)	5S3P1.0	0.10636E+17	0.47638E-02	0.81682E-03
(3P)	5S3P2.0	0.10696E+17	0.93984E-02	0.16207E-02

## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S4P0.5	55939.230	1.841	88560.000	30.398	28.357

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(3P)	4P4D0.5	0.17771E+16	0.78725E+01	0.22554E+00
(3P)	4P4J1.5	0.17915E+16	0.78725E+01	0.22737E+00
(3P)	4P4R0.5	0.19598E+16	0.15775E+01	0.49841E-01
(3P)	4P4P1.5	0.19629E+16	0.78876E+01	0.24961E+00
(3P)	4P4S1.5	0.20523E+16	0.31469E+01	0.10412E+00

## 8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S4P1.5	56090.590	1.841	88560.000	30.398	28.357

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(3P)	4P4D0.5	0.17486E+16	0.78726E+00	0.22193E-01
(3P)	4P4J1.5	0.17630E+16	0.50384E+01	0.14321E+00
(3P)	4P4D2.5	0.17884E+16	0.99194E+01	0.28600E+00
(3P)	4P4P0.5	0.19313E+16	0.39438E+01	0.12279E+00
(3P)	4P4P1.5	0.19344E+16	0.12620E+01	0.39355E-01
(3P)	4P4P2.5	0.19691E+16	0.42594E+01	0.13521E+00
(3P)	4P4S1.5	0.20238E+16	0.31469E+01	0.10267E+00

ORIGINAL PAGE IS  
OF POOR QUALITY

## 9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		454P2.5	56339.680	1.641	88560.000	30.398	28.357

INTERACTIONS -- DIPOLE --					
DESIGNATION	W	RAA**2	F	W L VAC	
(3P) 4P4D1.5	0.17161E+16	0.31490E+00	0.87122E-02	0.1097632E+05	
(3P) 4P4D2.5	0.17415E+16	0.28341E+01	0.79570E-01	0.1081613E+05	
(3P) 4P4D3.5	0.17796E+16	0.12596E+02	0.36138E+00	0.1059466E+05	
(3P) 4P4P1.5	0.18875E+16	0.28396E+01	0.86407E-01	0.9979531E+04	
(3P) 4P4P2.5	0.19222E+16	0.66256E+01	0.20531E+00	0.9799648E+04	
(3P) 4P4S1.5	0.19769E+16	0.31469E+01	0.10029E+00	0.9528508E+04	

## 10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		452P0.5	57876.801	1.897	88560.000	34.161	31.700

INTERACTIONS -- DIPOLE --					
DESIGNATION	W	RAA**2	F	W L VAC	
(3P) * 3P2P0.5	0.73753E+16	0.11248E+00	0.13374E-01	0.2553991E+04	
(3P) * 3P2P1.5	0.73705E+16	0.56244E-01	0.33415E-02	0.2555669E+04	
(3P) 4P2D1.5	0.16833E+16	0.17589E+02	0.47732E+00	0.1119028E+05	
(3P) 4P2P0.5	0.19014E+16	0.69867E+01	0.21417E+00	0.9906555E+04	
(3P) 4P2P1.5	0.19235E+16	0.34935E+01	0.10833E+00	0.9792867E+04	
(3P) 4P2S0.5	0.19960E+16	0.34622E+01	0.11141E+00	0.9437176E+04	

## 11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		452P1.5	58174.398	1.897	88560.000	34.161	31.701

INTERACTIONS -- DIPOLE --					
DESIGNATION	W	RAA**2	F	W L VAC	
(3P) * 3P2P0.5	0.74314E+16	0.28122E-01	0.67383E-02	0.2534726E+04	
(3P) * 3P2P1.5	0.74265E+16	0.14061E+00	0.16834E-01	0.2536378E+04	
(3P) 4P2D1.5	0.16272E+16	0.17589E+01	0.46143E-01	0.1157578E+05	
(3P) 4P2D2.5	0.16380E+16	0.15830E+02	0.41803E+00	0.1149982E+05	
(3P) 4P2P0.5	0.18454E+16	0.17467E+01	0.51965E-01	0.1020749E+05	
(3P) 4P2P1.5	0.18674E+16	0.87336E+01	0.26293E+00	0.1008683E+05	
(3P) 4P2S0.5	0.19399E+16	0.34622E+01	0.10828E+00	0.9709879E+04	

## 12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)		452D1.5	65156.602	1.628	106518.000	18.911	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P4P0.5	66343.375	2.227	68560.000	49.065	41.950

INTERACTIONS -- DIPOLE --  
DESIGNATION W

RAA\*\*2

F

W L VAC

(3P)	4S4P0.5	0.19598E+16	0.15775E+01	0.49841E-01	0.9611551E+04
(3P)	4S4P1.5	0.19313E+16	0.78876E+01	0.12279E+00	0.9753445E+04
(3P)	3D4D0.5	0.80886E+15	0.93855E+01	0.12239E+00	0.2328763E+05
(3P)	3D4D1.5	0.80886E+15	0.93855E+01	0.12239E+00	0.2328763E+05
(3P)	3D4P0.5	0.11731E+16	0.12986E+01	0.24559E-01	0.1605652E+05
(3P)	3D4P1.5	0.11587E+16	0.64928E+01	0.12128E+00	0.1625686E+05
(3P)	5S3P0.0	0.16428E+16	0.25106E+01	0.66492E-01	0.1146625E+05
(3P)	5S3P1.0	0.16704E+16	0.11477E+01	0.30907E-01	0.1127658E+05
(3P)	5S3P2.0	0.17311E+16	0.22643E+01	0.63190E-01	0.1088139E+05

INTERACTIONS -- QUADRUPOLE -

0.37814E+14 0.46146E+03

ORIGINAL PAGE IS  
OF POOR QUALITY

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P4P1.5	66360.187	2.227	88560.000	49.065	40.594

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W	L VAC
(3P)	4S4P0.5	0.19029E+16	0.39438E+01	0.24961E+00	0.9595047E+04
(3P)	4S4P1.5	0.19344E+16	0.12620E+01	0.39355E-01	0.9737477E+04
(3P)	4S4P2.5	0.18875E+16	0.42594E+01	0.86407E-01	0.9979531E+04
(3P)	3D4D0.5	0.80570E+15	0.93855E+00	0.12191E-01	0.2337916E+05
(3P)	3D4D1.5	0.80570E+15	0.60068E+01	0.78022E-01	0.2337916E+05
(3P)	3D4D2.5	0.63226E+15	0.11826E+02	0.15867E+00	0.2263243E+05
(3P)	3D4P0.5	0.11700E+16	0.32464E+01	0.61232E-01	0.1609998E+05
(3P)	3D4P1.5	0.11555E+16	0.10388E+01	0.19351E-01	0.1630141E+05
(3P)	3D4P2.5	0.11352E+16	0.35062E+01	0.64105E-01	0.1659355E+05
(3P)	5S3P0.0	0.16390E+16	0.99628E+00	0.26338E-01	0.1148839E+05
(3P)	5S3P1.0	0.16672E+16	0.47822E+00	0.12854E-01	0.1129800E+05
(3P)	5S3P2.0	0.17279E+16	0.30922E+01	0.86137E-01	0.1090134E+05

## INTERACTIONS -- QUADRUPOLE -

0.34647E+14	0.48139E+01
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## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P4P2.5	66544.125	2.227	86560.000	49.065	38.828

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W	L VAC
(3P)	4S4P1.5	0.19691E+16	0.28396E+01	0.13521E+00	0.9566141E+04
(3P)	4S4P2.5	0.19222E+16	0.66256E+01	0.20531E+00	0.9799648E+04
(3P)	3D4D1.5	0.77105E+15	0.37542E+00	0.46667E-02	0.2442972E+05
(3P)	3D4D2.5	0.79763E+15	0.33780E+01	0.43448E-01	0.2361554E+05
(3P)	3D4D3.5	0.79763E+15	0.15017E+02	0.19310E+00	0.2361554E+05
(3P)	3D4P1.5	0.11209E+16	0.23374E+01	0.42238E-01	0.1680531E+05
(3P)	3D4P2.5	0.11003E+16	0.54540E+01	0.96765E-01	0.1711596E+05
(3P)	5S3P1.0	0.16321E+16	0.24454E+01	0.64363E-01	0.1153777E+05
(3P)	5S3P2.0	0.16933E+16	0.35468E+00	0.96819E-02	0.1112440E+05

## INTERACTIONS -- QUADRUPOLE -

0.34647E+14	0.67404E+02
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ORIGINAL PAGE IS  
OF POOR QUALITY

16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P451.5	66834.500	2.247	88560.000	51.036	44.029

INTERACTIONS -- DIPOLE -					
DESIGNATION		#	RAA**2	F	M L VAC
(3P)	4S4P0.5	0.20523E+16	0.15734E+01	0.10412E+00	0.9178293E+04
(3P)	4S4P1.5	0.20238E+16	0.31469E+01	0.10267E+00	0.9307598E+04
(3P)	4S4P2.5	0.19769E+16	0.47204E+01	0.10029E+00	0.9528508E+04
(3P)	304P0.5	0.10806E+16	0.53064E+01	0.92443E-01	0.1743109E+05
(3P)	304P1.5	0.10662E+16	0.10613E+02	0.18241E+00	0.1766745E+05
(3P)	304P2.5	0.10458E+16	0.15919E+02	0.26840E+00	0.1801112E+05
(3P)	5S3P0.0	0.15503E+16	0.22669E+01	0.56656E-01	0.1215048E+05
(3P)	5S3P1.0	0.15779E+16	0.48361E+00	0.12302E-01	0.1193771E+05

## SULPHUR ----- 16 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(4S)	83559.312
	2	(2D)	97305.000
	3	(2P)	106518.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS				
1	(4S) 3P3P0.0	573.00	396.00	0.0		
2	(2P) 3P3P0.0	573.00	396.00	0.0		
3	(2D) 3P3P0.0	573.00	396.00	0.0		
4	(2P) 3P1D2.0	9239.00				
5	(2D) 3P1D2.0	9239.00				
6	(2P) 3P150.0	22181.00				
7	(4S) 4S5S2.0	52623.00				
8	(4S) 4S3S1.0	55131.00				
9	(4S) 4P5P1.0	63446.00	63457.00	63475.00		
10	(4S) 4P3P0.0	64891.00	64885.00	64892.00		
11	(2D) 4S3D1.0	67816.00	67825.00	67843.00		
12	(4S) 3D5D0.0	67878.00	67890.00	67898.00	67885.00	67884.00
13	(2D) 4S1D2.0	69238.00				
14	(4S) 3D3D1.0	70165.00	70166.00	70170.00		
15	(4S) 5S3S1.0	71352.00				
16	(4S) 5P5P1.0	73911.00	73915.00	73921.00		
17	(4S) 5P3P0.0	74269.00	74270.00	74272.00		
18	(4S) 4D5D0.0	74973.00	74974.00	74975.00	74976.00	74976.00
19	(4S) 4D3D1.0	75952.00	75952.00	75956.00		
20	(4S) 6S5S2.0	76464.00				
21	(4S) 6S3S1.0	76720.00				
22	(2P) 4S3P0.0	77136.00	77150.00	77191.00		
23	(4S) 6P5P1.0	77851.00	77856.00	77856.00		
24	(4S) 6P3P0.0	77891.00	77891.00	77891.00		
25	(2D) 4P3D1.0	78152.00	78152.00	78203.00		
26	(4S) 5D5D0.0	78270.00	78270.00	78270.00	78271.00	78271.00
27	(2P) 4S1P1.0	78290.00				
28	(2D) 4P3F2.0	78410.00	78436.00	78463.00		
29	(2D) 4P1F3.0	78638.00				
30	(4S) 5D3D1.0	78692.00	78691.00	78692.00		
31	(4S) 7S5S2.0	79058.00				
32	(4S) 5F5F1.0	79143.00	79143.00	79144.00	79144.00	79144.00
33	(4S) 7S3S1.0	79195.00				
34	(2D) 4P3P0.0	79376.00	79405.00	79418.00		
35	(4S) 7P5P1.0	79785.00	79785.00	79785.00		
36	(4S) 6D5D0.0	79992.00	79992.00	79992.00	79992.00	79992.00
37	(4S) 7P3P0.0	80113.00	80120.00	80124.00		
38	(4S) 6D3D1.0	80182.00	80183.00	80185.00		
39	(4S) 8S5S2.0	80449.00				
40	(4S) 6F5F1.0	80494.00	80494.00	80495.00	80495.00	80495.00
41	(4S) 8S3S1.0	80521.00				
42	(4S) 7D5D0.0	80995.00	80995.00	80995.00	80995.00	80995.00
43	(4S) 8P3P0.0	80995.00	80995.00	80996.00		

Table 14. Sulphur

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS				
44	(4S) 703D1.0	81080.00	81082.00	81084.00		
45	(4S) 95552.0	81281.00				
46	(4S) 7F5F1.0	81309.00	81309.00	81310.00	81310.00	81310.00
47	(4S) 90500.0	81628.00	81628.00	81628.00	81628.00	81628.00
48	(4S) 803D1.0	81663.00	81666.00	81666.00		
49	(4S) 105552.0	81819.00				
50	(4S) 90500.0	82053.00	82053.00	82053.00	82053.00	82053.00
51	(4S) 100500.0	82353.00	82353.00	82353.00	82353.00	82353.00

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	*	3P3P2.0	0.0	1.016	106518.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
 DESIGNATION W RAA\*\*2 F W L VAC

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)	*	3P3P2.0	0.0	1.147	83559.312	0.0	0.0

INTERACTIONS -- DIPOLE -  
 DESIGNATION W RAA\*\*2 F W L VAC

## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2D)	*	3P3P2.0	0.0	1.063	97305.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
 DESIGNATION W RAA\*\*2 F W L VAC



## 4 - SEQ. NUM.

PR EF DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P) * 3P102.0	9239.000	1.062	106518.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

## 5 - SEQ. NUM.

PR EF DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P) * 3P150.0	22181.000	1.140	106518.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

## 6 - SEQ. NUM.

PR EF DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S) 4S552.0	52623.000	1.883	83559.312	33.197	30.386

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

(4S) 4P5P1.0	0.20387E+16	0.60343E+01	0.19833E+00	0.9239582E+04
(4S) 4P5P2.0	0.20407E+16	0.10057E+02	0.33088E+00	0.9230199E+04
(4S) 4P5P3.0	0.20441E+16	0.14080E+02	0.46400E+00	0.9214891E+04
(4S) 5P5P1.0	0.40097E+16	0.37505E-01	0.24246E-02	0.4697480E+04
(4S) 5P5P2.0	0.40107E+16	0.62508E-01	0.40415E-02	0.4696598E+04
(4S) 5P5P3.0	0.40118E+16	0.87512E-01	0.56599E-02	0.4695273E+04
(4S) 6P5P1.0	0.47521E+16	0.43706E-02	0.33483E-03	0.3963850E+04
(4S) 6P5P2.0	0.47530E+16	0.72842E-02	0.55815E-03	0.3963064E+04
(4S) 6P5P3.0	0.47530E+16	0.10198E-01	0.78143E-03	0.3963064E+04
(4S) 7P5P1.0	0.51164E+16	0.10668E-02	0.87990E-04	0.3681614E+04
(4S) 7P5P2.0	0.51164E+16	0.17779E-02	0.14665E-03	0.3681614E+04
(4S) 7P5P3.0	0.51164E+16	0.24891E-02	0.20531E-03	0.3681614E+04

OR FE DESIG (45)	LEVEL 45331.0	N EFF 1.971	S. LIMIT 83559.312	RAA**2 39.684	S. RAA**2 35.731
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(45) 4P3P0.0	0.18004E+16	0.39416E+01	0.11443E+00	0.1045025E+05
(45) 4P3P1.0	0.18004E+16	0.11825E+02	0.34321E+00	0.1046244E+05
(45) 4P3P2.0	0.18010E+16	0.19708E+02	0.57220E+00	0.1045916E+05
(45) 5P3P0.0	0.35673E+16	0.13734E-01	0.78984E-03	0.5230387E+04
(45) 5P3P1.0	0.35674E+16	0.41201E-01	0.23696E-02	0.5280109E+04
(45) 5P3P2.0	0.35673E+16	0.68670E-01	0.39498E-02	0.5279551E+04
(45) 6P3P0.0	0.42405E+16	0.32779E-03	0.22450E-04	0.4432621E+04
(45) 6P3P1.0	0.42405E+16	0.98307E-03	0.67348E-04	0.4432621E+04
(45) 6P3P2.0	0.42495E+16	0.16385E-02	0.11225E-03	0.4432621E+04
(45) 7P3P0.0	0.46681E+16	0.13002E-01	0.97846E-03	0.4035187E+04
(45) 7P3P1.0	0.46694E+16	0.39004E-01	0.29361E-02	0.4034047E+04
(45) 7P3P2.0	0.46701E+16	0.65008E-01	0.48944E-02	0.4033396E+04
(45) 8P3P0.0	0.48342E+16	0.15347E-02	0.11961E-03	0.3896509E+04
(45) 8P3P1.0	0.48342E+16	0.46041E-02	0.35681E-03	0.3896509E+04
(45) 8P3P2.0	0.48344E+16	0.76736E-02	0.59806E-03	0.3896357E+04

8 - SEQ. NUM.

PR FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)	40501.0	63446.000	2.336	83559.312	60.714	55.308

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	45552.0	0.20387E+16	0.10057E+02	0.19833E+00	0.9239582E+04
(4S)	30500.0	0.83483E+15	0.72504E+01	0.97587E-01	0.2256318E+05
(4S)	30501.0	0.83709E+15	0.16314E+02	0.22015E+00	0.2250225E+05
(4S)	30502.0	0.83672E+15	0.12689E+02	0.17116E+00	0.2251238E+05
(4S)	40500.0	0.21713E+16	0.10667E+01	0.37340E-01	0.9675281E+04
(4S)	40501.0	0.21715E+16	0.24001E+01	0.84020E-01	0.8674531E+04
(4S)	40502.0	0.21717E+16	0.18660E+01	0.65356E-01	0.8673777E+04
(4S)	65552.0	0.24521E+16	0.49634E+00	0.19621E-01	0.7681658E+04
(4S)	50500.0	0.27923E+16	0.30483E+00	0.13722E-01	0.5745816E+04
(4S)	50501.0	0.27923E+16	0.68586E+00	0.30875E-01	0.6745816E+04
(4S)	50502.0	0.27923E+16	0.53345E+00	0.24014E-01	0.6745816E+04
(4S)	75552.0	0.29409E+16	0.14627E+00	0.89344E-02	0.6405328E+04
(4S)	60500.0	0.31167E+16	0.12702E+00	0.63822E-02	0.6043754E+04
(4S)	60501.0	0.31167E+16	0.28579E+00	0.14360E-01	0.6043754E+04
(4S)	60502.0	0.31167E+16	0.22228E+00	0.11169E-01	0.6043754E+04
(4S)	85552.0	0.12024E+16	0.66466E-01	0.34319E-02	0.5881312E+04
(4S)	70500.0	0.33056E+16	0.65806E-01	0.35069E-02	0.5698328E+04
(4S)	70501.0	0.33056E+16	0.14806E+00	0.78904E-02	0.5698328E+04
(4S)	70502.0	0.33056E+16	0.11516E+00	0.61370E-02	0.5698328E+04
(4S)	95552.0	0.33595E+16	0.36819E-01	0.19941E-02	0.5606949E+04
(4S)	80500.0	0.34249E+16	0.39999E-01	0.21533E-02	0.5499941E+04
(4S)	80501.0	0.34249E+16	0.87745E-01	0.48447E-02	0.5499941E+04
(4S)	80502.0	0.34249E+16	0.68247E-01	0.37682E-02	0.5499941E+04
(4S)	105552.0	0.34608E+16	0.22913E-01	0.12784E-02	0.5442766E+04
(4S)	90500.0	0.35049E+16	0.25196E-01	0.14237E-02	0.5374320E+04
(4S)	90501.0	0.35049E+16	0.56691E-01	0.32033E-02	0.5374320E+04
(4S)	90502.0	0.35049E+16	0.44093E-01	0.24915E-02	0.5374320E+04
(4S)	100500.0	0.35614E+16	0.17175E-01	0.98612E-03	0.5289043E+04
(4S)	100501.0	0.35614E+16	0.38644E-01	0.22187E-02	0.5289043E+04
(4S)	100502.0	0.35614E+16	0.30057E-01	0.17257E-02	0.5289043E+04

INTERACTIONS -- QUADRUPOLE -

0.30777E+16 0.41184E+04

## 9 - SEQ. NUM.

PR EF	DE SIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(45)	4P5P2.0	6.3457.000	2.336	83559.312	60.714	55.308

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(45)	45552.0	0.20407E+15	0.10057E+02	0.33089F+00	0.9230199F+04
(45)	30501.0	0.83502F+15	0.32624E+01	0.43923F-01	0.2255409F+05
(45)	30502.0	0.83465E+15	0.12689E+02	0.17074E+00	0.2256827E+05
(45)	30503.0	0.83408E+15	0.20702E+02	0.27299F+00	0.2258356F+05
(45)	40501.0	0.21694F+16	0.48002E+00	0.16788E-01	0.8682816E+04
(45)	40502.0	0.21694E+16	0.18668E+01	0.65293E-01	0.8682062E+04
(45)	40503.0	0.21694E+16	0.29868E+01	0.10448F+00	0.8681309E+04
(45)	65552.0	0.24501E+16	0.49634E+00	0.15605E-01	0.7688164E+04
(45)	50501.0	0.27903E+16	0.13717E+00	0.61704E-02	0.6750824E+04
(45)	50502.0	0.27903E+16	0.53345F+00	0.23995E-01	0.5750824F+04
(45)	50503.0	0.27904E+16	0.85352F+00	0.38396E-01	0.6750371E+04
(45)	75552.0	0.29387E+16	0.14626E+00	0.69294E-02	0.6409844E+04
(45)	60501.0	0.31146E+16	0.57159E-01	0.28701E-02	0.6047777E+04
(45)	60502.0	0.31146E+16	0.22228F+00	0.11161E-01	0.6047777E+04
(45)	60503.0	0.31146E+16	0.35565E+00	0.17858E-01	0.6047777E+04
(45)	85552.0	0.32007E+16	0.66465E-01	0.34296F-02	0.5885121E+04
(45)	70501.0	0.33035E+16	0.29612E-01	0.15771E-02	0.5701902E+04
(45)	70502.0	0.33035E+16	0.11516E+00	0.61332E-02	0.5701902E+04
(45)	70503.0	0.33035E+16	0.18426E+00	0.98130E-02	0.5701902E+04
(45)	95552.0	0.33574E+16	0.36819F-01	0.19929E-02	0.5610410E+04
(45)	80501.0	0.34223E+16	0.17549E-01	0.96837E-03	0.5503273E+04
(45)	80502.0	0.34223E+16	0.68247E-01	0.37659E-02	0.5503273E+04
(45)	80503.0	0.34228E+16	0.10920E+00	0.60254E-02	0.5503273E+04
(45)	105552.0	0.34588E+16	0.22912E-01	0.12776E-02	0.5445027E+04
(45)	90501.0	0.35028E+16	0.11338E-01	0.64028E-03	0.5377500E+04
(45)	90502.0	0.35028E+16	0.44093E-01	0.24900E-02	0.5377500E+04
(45)	90503.0	0.35028E+16	0.70549E-01	0.39840E-02	0.5377500E+04
(45)	100501.0	0.35593E+16	0.77238E-02	0.44349E-03	0.5292125F+04
(45)	100502.0	0.35593E+16	0.30057E-01	0.17247E-02	0.5292125F+04
(45)	100503.0	0.35593E+16	0.48090E-01	0.27595E-02	0.5292125F+04

## INTERACTIONS -- QUADRUPOLE -

0.30756E+16	0.35581E+04
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## 10 - SFQ. NUM.

PR	EE	DESIG	LFVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		4P5P3.0	63475.000	2.336	83559.312	60.714	55.308

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	45552.0	0.20441E+16	0.10057E+02	0.46400E+00	0.9214891E+04
(4S)	3D502.0	0.83125E+15	0.10358E+01	0.13881E-01	0.2266072E+05
(4S)	3D503.0	0.83069E+15	0.72508E+01	0.97102E-01	0.2257573E+05
(4S)	3D504.0	0.83050E+15	0.27967E+02	0.37445E+00	0.2268088E+05
(4S)	4D502.0	0.21662E+16	0.15239E+00	0.53219E-02	0.8695649E+04
(4S)	4D503.0	0.21664E+16	0.10667E+01	0.37255E-01	0.8694895E+04
(4S)	4D504.0	0.21664E+16	0.41145E+01	0.14370E+00	0.8694895E+04
(4S)	6S552.0	0.24467E+16	0.49634E+00	0.19578E-01	0.7698820E+04
(4S)	5D502.0	0.27869E+16	0.43547E-01	0.19565E-02	0.6759039E+04
(4S)	5D503.0	0.27871E+16	0.30483E+00	0.13696E-01	0.6754582E+04
(4S)	5D504.0	0.27871E+16	0.11758E+01	0.52823E-01	0.6754582E+04
(4S)	7S552.0	0.29353E+16	0.14627E+00	0.69215E-02	0.6417246E+04
(4S)	6D502.0	0.31112E+16	0.18146E-01	0.91015E-03	0.6054367E+04
(4S)	6D503.0	0.31112E+16	0.12702E+00	0.63710E-02	0.6054367E+04
(4S)	6D504.0	0.31112E+16	0.48993E+00	0.24574E-01	0.6054367E+04
(4S)	8S552.0	0.31973E+16	0.66466E-01	0.34260E-02	0.5891359E+04
(4S)	7D502.0	0.33002E+16	0.94009E-02	0.50016E-03	0.5707762E+04
(4S)	7D503.0	0.33002E+16	0.65806E-01	0.35011E-02	0.5707762E+04
(4S)	7D504.0	0.33002E+16	0.25382E+00	0.13504E-01	0.5707762E+04
(4S)	9S552.0	0.33540E+16	0.30819E-01	0.19909E-02	0.5616082E+04
(4S)	8D502.0	0.34194E+16	0.55712E-02	0.30712E-03	0.5508730E+04
(4S)	8D503.0	0.34194E+16	0.38999E-01	0.21498E-02	0.5508730E+04
(4S)	8D504.0	0.34194E+16	0.15042E+00	0.82921E-02	0.5508730E+04
(4S)	10S552.0	0.34554E+16	0.22913E-01	0.12764E-02	0.5451371E+04
(4S)	9D502.0	0.34994E+16	0.35995E-02	0.20307E-03	0.5382707E+04
(4S)	9D503.0	0.34994E+16	0.25196E-01	0.14215E-02	0.5382707E+04
(4S)	9D504.0	0.34994E+16	0.97189E-01	0.54828E-02	0.5382707E+04
(4S)	10D502.0	0.35560E+16	0.24536E-02	0.14066E-03	0.5297168E+04
(4S)	10D503.0	0.35560E+16	0.17175E-01	0.98460E-03	0.5297168E+04
(4S)	10D504.0	0.35560E+16	0.66247E-01	0.37978E-02	0.5297168E+04

## INTERACTIONS -- QUADRUPOLE -

0.30722E+16	0.38825E+04
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## 11 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(4S)		4P3D0.0	64891.000	2.424	83559.312	71.438	72.991

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(4S)	4S3S1.0	0.18008E+16	0.11825E+02	0.11443E+00	0.1046025F+05
(4S)	3D3D1.0	0.99344E+15	0.47095E+02	0.75426E+00	0.1846094E+05
(4S)	5S3S1.0	0.12170F+16	0.10095E+02	0.19787F+00	0.1547748E+05
(4S)	4D3D1.0	0.20835E+16	0.12825E+01	0.43077E-01	0.9040773E+04
(4S)	6S3S1.0	0.22282E+16	0.58444F+00	0.20994E-01	0.8453797E+04
(4S)	5D3D1.0	0.25996E+16	0.84870E+00	0.35569F-01	0.7245852E+04
(4S)	7S3S1.0	0.26925E+16	0.17219E+00	0.74740E-02	0.6995941E+04
(4S)	6D3D1.0	0.28803E+16	0.50041E+00	0.23236E-01	0.6539793E+04
(4S)	8S3S1.0	0.29441E+16	0.78672E-01	0.37341E-02	0.8397949E+04
(4S)	7D3D1.0	0.30494E+16	0.31388E+00	0.15431E-01	0.6177031E+04
(4S)	8D3D1.0	0.31593E+16	0.20532E+00	0.10457E-01	0.5962316E+04

## INTERACTIONS -- QUADRUPOLE -

0.30336E+16	0.64437E+04
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## 12 - SEQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2D)		4S3D2.0	67825.000	1.929	97305.000	36.481	32.003

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(2D)	4P3D1.0	0.19452E+16	0.16309E+01	0.51146E-01	0.9683352E+04
(2D)	4P3D2.0	0.19452E+16	0.75503E+01	0.23674F+00	0.9683352F+04
(2D)	4P3D3.0	0.19549E+16	0.16913E+01	0.53302F-01	0.9635766E+04
(2D)	4P3F2.0	0.19938E+16	0.16724E+01	0.53756E-01	0.9447328E+04
(2D)	4P3F3.0	0.19987E+16	0.13379E+02	0.43110E+00	0.9424180E+04
(2D)	4P3P1.0	0.21813E+16	0.45597E+01	0.16034E+00	0.8635578E+04
(2D)	4P3P2.0	0.21837E+16	0.15199E+01	0.53508E-01	0.8625895E+04

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## 13 - SFO. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(4S)		3D3D1.0	70165.000	2.862	83559.312	98.225	38.022

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(4S)	4P3P0.0	0.99344E+15	0.15698E+02	0.75426E+00	0.1896094E+05
(4S)	4P3P1.0	0.99381E+15	0.11774E+02	0.18263E+00	0.1895375E+05
(4S)	4P3P2.0	0.99325E+15	0.78492E+00	0.75412E-02	0.1896454E+05
(4S)	5P3P0.0	0.77305E+15	0.51559E+01	0.64255E-01	0.2436647E+05
(4S)	5P3P1.0	0.77324E+15	0.38669E+01	0.48203E-01	0.2436054E+05
(4S)	5P3P2.0	0.77362E+15	0.25779E+00	0.32152E-02	0.2434867E+05
(4S)	6P3P0.0	0.14553E+16	0.21768E+00	0.51071E-02	0.1294330E+05
(4S)	6P3P1.0	0.14553E+16	0.16326E+00	0.36303E-02	0.1294330E+05
(4S)	6P3P2.0	0.14553E+16	0.10884E-01	0.25535E-03	0.1294330E+05
(4S)	7P3P0.0	0.18739E+16	0.33211E-01	0.10033E-02	0.1005227E+05
(4S)	7P3P1.0	0.18752E+16	0.24908E-01	0.75298E-03	0.1004520E+05
(4S)	7P3P2.0	0.18759E+16	0.16606E-02	0.50219E-04	0.1004117E+05
(4S)	8P3P0.0	0.20400E+16	0.18364E-01	0.60396E-03	0.9233609E+04
(4S)	8P3P1.0	0.20400E+16	0.13773E-01	0.45295E-03	0.9233609E+04
(4S)	8P3P2.0	0.20402E+16	0.91822E-03	0.30201E-04	0.9232758E+04

## INTERACTIONS -- QUADRUPOLE -

0.21664E+16	0.93330E+04
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## 14 - SEQ. NUM.

PR	EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(4S)		55351.0	71352.000	2.997	83559.312	206.305	203.751

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(4S)	4P3P0.0	0.12170E+16	0.33517E+01	0.19787E+00	0.1547744E+05
(4S)	4P3P1.0	0.12174E+16	0.10085E+02	0.19793E+00	0.1547262E+05
(4S)	4P3P2.0	0.12169E+16	0.16808E+02	0.19784E+00	0.1547987E+05
(4S)	5P3P0.0	0.54946E+15	0.19073E+02	0.16895E+00	0.3428179E+05
(4S)	5P3P1.0	0.54965E+15	0.57218E+02	0.50702E+00	0.3427005E+05
(4S)	5P3P2.0	0.55003E+15	0.95366E+02	0.84562E+00	0.3424657E+05
(4S)	6P3P0.0	0.12317E+16	0.30999E-01	0.61554E-03	0.1529286E+05
(4S)	6P3P1.0	0.12317E+16	0.92993E-01	0.18466E-02	0.1529286E+05
(4S)	6P3P2.0	0.12317E+16	0.15499E+00	0.30777E-02	0.1529286E+05
(4S)	7P3P0.0	0.16503E+16	0.15141E+00	0.40283E-02	0.1141422E+05
(4S)	7P3P1.0	0.16516E+16	0.45423E+00	0.12094E-01	0.1140511E+05
(4S)	7P3P2.0	0.16523E+16	0.75707E+00	0.20167E-01	0.1139991E+05
(4S)	8P3P0.0	0.18164E+16	0.21925E-01	0.64203E-03	0.1037021E+05
(4S)	8P3P1.0	0.18164E+16	0.65773E-01	0.19260E-02	0.1037021E+05
(4S)	8P3P2.0	0.18166E+16	0.10962E+00	0.32105E-02	0.1036914E+05

## 15 - SEQ. NUM.

PR FE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45) 5P5P2.0	71915.000	3.373	83559.312	294.931	242.889

INTERACTIONS -- DIPOLE -		RAA**2			F		W L VAC	
DESIGNATION	W							
(45) 4S5S2.0	0.40107E+16	0.62508E-01	0.40416E-02	0.4696598E+04				
(45) 70501.0	0.11349E+16	0.33689E+00	0.10273E-01	0.1659751E+05				
(45) 30502.0	0.11353E+16	0.13101E+01	0.23979E-01	0.1659200E+05				
(45) 30503.0	0.11358E+16	0.20962E+01	0.27417E-01	0.1658375E+05				
(45) 40501.0	0.19948E+15	0.15364E+02	0.49410E-01	0.9442869E+05				
(45) 40502.0	0.19967E+15	0.59751E+02	0.19233E+00	0.9433956E+05				
(45) 40503.0	0.19986E+15	0.95601E+02	0.30802E+00	0.9425069E+05				
(45) 6S5S2.0	0.48014E+15	0.42137E+02	0.32617E+00	0.3923107E+05				
(45) 50501.0	0.92033E+15	0.14072E+01	0.18610E-01	0.2296211E+05				
(45) 50502.0	0.92033E+15	0.54725E+01	0.72373E-01	0.2296211E+05				
(45) 50503.0	0.92052E+15	0.87560E+01	0.11582E+00	0.2295684E+05				
(45) 7S5S2.0	0.96876E+15	0.19131E+01	0.29878E-01	0.1944390E+05				
(45) 60501.0	0.11447E+16	0.37357E+00	0.69862E-02	0.1645548E+05				
(45) 60502.0	0.11447E+16	0.14722E+01	0.27169E-01	0.1645548E+05				
(45) 60503.0	0.11447E+16	0.23556E+01	0.43470E-01	0.1645548E+05				
(45) 8S5S2.0	0.12308E+16	0.50661E+00	0.10052E-01	0.1530456E+05				
(45) 70501.0	0.13336E+16	0.15917E+00	0.34221E-02	0.1412429E+05				
(45) 70502.0	0.13336E+16	0.61899E+00	0.13308E-01	0.1412429E+05				
(45) 70503.0	0.13336E+16	0.99037E+00	0.21293E-01	0.1412429E+05				
(45) 9S5S2.0	0.13875E+16	0.21770E+00	0.48696E-02	0.1357589E+05				
(45) 80501.0	0.14529E+16	0.84157E-01	0.19711E-02	0.1296512E+05				
(45) 80502.0	0.14529E+16	0.32728E+00	0.76656E-02	0.1296512E+05				
(45) 90503.0	0.14529E+16	0.52364E+00	0.12265E-01	0.1296512E+05				
(45) 10S5S2.0	0.14888E+16	0.11732E+00	0.28159E-02	0.1265182E+05				
(45) 90501.0	0.15329E+16	0.50703E-01	0.12530E-02	0.1228803E+05				
(45) 90502.0	0.15329E+16	0.19718E+00	0.48729E-02	0.1228803E+05				
(45) 90503.0	0.15329E+16	0.31549E+00	0.77965E-02	0.1228803E+05				
(45) 100501.0	0.15894E+16	0.32859E-01	0.84197E-03	0.1185115E+05				
(45) 100502.0	0.15894E+16	0.12779E+00	0.32744E-02	0.1185115E+05				
(45) 100503.0	0.15894E+16	0.20446E+00	0.52390E-02	0.1185115E+05				

## INTERACTIONS -- QUADRUPOLE -

0.19720E+16	0.72485E+05
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## 16 - SEQ. NUM.

PR	FF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		5P1P0.0	74769.000	3.436	83559.312	319.935	325.591

INTERACTIONS -- DIPOLE -				
DESIGNATION	W	RAA**2	F	W L VAC
(45)	4S3S1.0	0.35673E+16	0.41202E-01	0.5280387F+04
(45)	3D3D1.0	0.77305E+15	0.15468E+02	0.2436647F+05
(45)	5S3S1.0	0.54945E+15	0.57220E+02	0.3428179E+05
(45)	4D3D1.0	0.31702E+15	0.19808E+03	0.5941770E+05
(45)	6S3S1.0	0.46168E+15	0.44392E+02	0.3079967E+05
(45)	5D3D1.0	0.83314E+15	0.32926E+01	0.2260909E+05
(45)	7S3S1.0	0.92600E+15	0.21002E+01	0.2034174E+05
(45)	6D3D1.0	0.11138E+16	0.22104E+01	0.1491189E+05
(45)	8S3S1.0	0.11777E+16	0.56071E+00	0.1599488E+05
(45)	7D3D1.0	0.12830E+16	0.13566E+01	0.1458213E+05
(45)	8D3D1.0	0.13928E+16	0.87506E+00	0.1352448E+05

## INTERACTIONS -- QUADRUPOLE -

0.17663E+16	0.11875E+06
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## 17 - SEQ. NUM.

PR	FF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		4D5D0.0	74973.000	3.575	83559.312	299.145	127.383

INTERACTIONS -- DIPOLE -				
DESIGNATION	W	RAA**2	F	W L VAC
(45)	4P5P1.0	0.21713E+16	0.32002E+01	0.4675281E+04
(45)	5P5P1.0	0.20004E+15	0.10243E+03	0.2416194E+05
(45)	6P5P1.0	0.54211E+15	0.10443E+02	0.3474635E+05
(45)	5F5F1.0	0.78548E+15	0.60791E+01	0.2398081E+05
(45)	7P5P1.0	0.90641E+15	0.93568E+00	0.2078138E+05
(45)	6F5F1.0	0.10400E+16	0.28463E+01	0.1811266E+05
(45)	7F5F1.0	0.11935E+16	0.14474E+01	0.1578283E+05

## INTERACTIONS -- QUADRUPOLE -

0.13901E+16	0.13000E+06
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## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		4D3D1.0	75952.000	3.798	83559.312	397.268	162.747

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	4P3P0.0	0.20835E+16	0.42749E+00	0.43077E-01	0.9040773E+04
(4S)	4P3P1.0	0.20839E+16	0.32062E+00	0.10771E-01	0.9039137E+04
(4S)	4P3P2.0	0.20633E+16	0.21375E-01	0.43074E-03	0.9041590E+04
(4S)	5P3P0.0	0.31702E+15	0.66025E+02	0.10123E+01	0.5941770E+05
(4S)	5P3P1.0	0.31683E+15	0.49518E+02	0.25293E+00	0.5945303E+05
(4S)	5P3P2.0	0.31645E+15	0.33013E+01	0.10105E-01	0.5952381E+05
(4S)	6P3P0.0	0.36524E+15	0.27141E+02	0.13626E+00	0.5157297E+05
(4S)	6P3P1.0	0.36524E+15	0.17355E+02	0.10219E+00	0.5157297E+05
(4S)	6P3P2.0	0.36524E+15	0.11570E+01	0.68129E-02	0.5157297E+05
(4S)	7P3P0.0	0.78379E+15	0.57820E+00	0.73060E-02	0.2401268E+05
(4S)	7P3P1.0	0.78511E+15	0.43365E+00	0.54887E-02	0.2399232E+05
(4S)	7P3P2.0	0.78586E+15	0.28910E-01	0.36627E-03	0.2396932E+05
(4S)	8P3P0.0	0.94993E+15	0.24354E+00	0.37295E-02	0.1982946E+05
(4S)	8P3P1.0	0.94993E+15	0.18266E+00	0.27972E-02	0.1982946E+05
(4S)	8P3P2.0	0.95011E+15	0.12177E-01	0.18652E-03	0.1992554E+05

## INTERACTIONS -- QUADRUPOLE -

0.10901E+16	0.79602E+05
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## 19 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		655S2.0	75464.000	3.932	83559.312	605.104	596.772

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	4P5P1.0	0.24521E+16	0.29781E+00	0.19621E-01	0.7681668E+04
(4S)	4P5P2.0	0.24501E+16	0.49634E+00	0.19605E-01	0.7688164E+04
(4S)	4P5P3.0	0.24467E+16	0.69489E+00	0.19578E-01	0.7698820E+04
(4S)	5P5P1.0	0.48090E+15	0.25283E+02	0.32668E+00	0.3916960E+05
(4S)	5P5P2.0	0.48014E+15	0.42137E+02	0.32617E+00	0.3923107E+05
(4S)	5P5P3.0	0.47901E+15	0.58993E+02	0.32540E+00	0.3932363E+05
(4S)	6P5P1.0	0.26126E+15	0.92905E+02	0.39131E+00	0.7209800E+05
(4S)	6P5P2.0	0.26220E+15	0.15484E+03	0.65453E+00	0.7183906E+05
(4S)	6P5P3.0	0.26220E+15	0.21678E+03	0.91635E+00	0.7183906E+05
(4S)	7P5P1.0	0.62555E+15	0.86949E+00	0.87667E-02	0.3011141E+05
(4S)	7P5P2.0	0.62555E+15	0.14491E+01	0.14614E-01	0.3011141E+05
(4S)	7P5P3.0	0.62555E+15	0.20288E+01	0.20460E-01	0.3011141E+05

## 20 - SEQ. NUM.

PR FF	DESIG	LEVEL	N EFF	S. LIMIT	HAA**2	S. RAA**2
(4S)	6S3S1.0	76720.000	4.005	83559.312	650.945	686.521

INTERACTIONS -- DIPOLE -  
DESIGNATION

		M	RAA**2	F	W. L VAC
(4S)	4P3P0.0	0.22282E+16	0.19481E+00	0.20094E-01	0.3457797E+04
(4S)	4P3P1.0	0.22285E+16	0.58443E+00	0.20997E-01	0.8452367E+04
(4S)	4P3P2.0	0.22280E+16	0.97406E+00	0.20992E-01	0.9454512E+04
(4S)	5P3P0.0	0.46168E+15	0.14797E+02	0.33041E+00	0.4079967E+05
(4S)	5P3P1.0	0.46149E+15	0.44391E+02	0.33027E+00	0.4081632E+05
(4S)	5P3P2.0	0.46112E+15	0.73987E+02	0.33000E+00	0.4084967E+05
(4S)	6P3P0.0	0.22058E+15	0.59307E+02	0.21089E+00	0.9539706E+05
(4S)	6P3P1.0	0.22058E+15	0.17792E+03	0.63267E+00	0.8539706E+05
(4S)	6P3P2.0	0.22058E+15	0.29653E+03	0.10545E+01	0.9539706E+05
(4S)	7P3P0.0	0.63912E+15	0.17788E+01	0.18328E-01	0.2947244E+05
(4S)	7P3P1.0	0.64044E+15	0.53362E+01	0.55095E-01	0.2941176E+05
(4S)	7P3P2.0	0.64119E+15	0.88939E+01	0.91935E-01	0.2937720E+05
(4S)	8P3P0.0	0.80526E+15	0.20328E+00	0.26390E-02	0.2339181E+05
(4S)	8P3P1.0	0.80526E+15	0.60983E+00	0.79167E-02	0.2339181E+05
(4S)	8P3P2.0	0.80545E+15	0.10164E+01	0.13198E-01	0.2338634E+05

## 21 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. PAA**2
(2P)	4S3P2.0	77181.000	1.933	106518.000	36.775	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION

	M	RAA**2	F	W. L VAC
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22 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		50500.0	78270.000	4.554	83559.312	898.691	842.617

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	4P5P1.0	0.27923E+16	0.91450F+00	0.13722E-01	0.6745816E+04
(4S)	5P5P1.0	0.82104E+15	0.93815F+01	0.41394E-01	0.2294104E+05
(4S)	6P5P1.0	0.74925E+14	0.31015E+03	0.13154E+00	0.2386634E+06
(4S)	5F5F1.0	0.16444E+15	0.48826E+03	0.12944E+01	0.1145475E+06
(4S)	7P5P1.0	0.28537E+15	0.30860E+02	0.14198E+00	0.6600656E+05
(4S)	6F5F1.0	0.41892E+15	0.14753E+01	0.99639E-02	0.4496403E+05
(4S)	7F5F1.0	0.57244E+15	0.15729E+01	0.14515E-01	0.3290556E+05

INTERACTIONS -- QUADRUPOLE -

0.19556E+16 0.30698E+06

23 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		50501.0	78270.000	4.554	83559.312	898.691	842.608

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	4P5P1.0	0.27923E+16	0.68586E+00	0.30875E-01	0.6745816E+04
(4S)	4P5P2.0	0.27903E+16	0.22862E+00	0.61704E-02	0.6750824E+04
(4S)	5P5P1.0	0.32103E+15	0.70360F+01	0.9313E-01	0.2294104E+05
(4S)	5P5P2.0	0.82033E+15	0.23453F+01	0.18610F-01	0.2295211E+05
(4S)	6P5P1.0	0.78925E+14	0.23261E+03	0.29597E+00	0.2386634E+06
(4S)	6P5P2.0	0.77983E+14	0.77537E+02	0.58488E-01	0.2415459E+06
(4S)	5F5F1.0	0.16444E+15	0.16275E+03	0.43147E+00	0.1145475E+06
(4S)	5F5F2.0	0.16444E+15	0.32550E+03	0.96293F+00	0.1145475E+06
(4S)	7P5P1.0	0.28537E+15	0.23145E+02	0.10648E+00	0.6600656E+05
(4S)	7P5P2.0	0.28537E+15	0.77150E+01	0.35494E-01	0.6600656E+05
(4S)	6F5F1.0	0.41892E+15	0.49178E+00	0.33213E-02	0.4496403E+05
(4S)	6F5F2.0	0.41892E+15	0.98355E+00	0.66426E-02	0.4496403E+05
(4S)	7F5F1.0	0.57244E+15	0.52428E+00	0.45384E-02	0.3290556E+05
(4S)	7F5F2.0	0.57244E+15	0.10486E+01	0.96767E-02	0.3290556E+05

INTERACTIONS -- QUADRUPOLE -

0.19562E+16 0.68969E+06

B - 210

ORIGINAL PAGE IS  
OF POOR QUALITY

24 - SFQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(45)		505D2.0	78270.000	4.554	83559.312	898.691	842.613

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

(45)	4P5P1.0	0.27923E+16	0.32007E+00	0.24014E-01	0.6745816E+04
(45)	4P5P2.0	0.27903E+16	0.53345E+00	0.23995E-01	0.6750824E+04
(45)	4P5P3.0	0.27869E+16	0.60966E-01	0.19565E-02	0.6759039E+04
(45)	5P5P1.0	0.82108E+15	0.32835E+01	0.72440E-01	0.2294104E+05
(45)	5P5P2.0	0.82033E+15	0.54725E+01	0.72373E-01	0.2296211E+05
(45)	5P5P3.0	0.81920E+15	0.62543E+00	0.58999E-02	0.2299379E+05
(45)	6P5P1.0	0.78925E+14	0.10855E+01	0.23020E+00	0.2386634E+06
(45)	6P5P2.0	0.77983E+14	0.18092E+03	0.22746E+00	0.2415459E+06
(45)	6P5P3.0	0.77983E+14	0.20677E+02	0.18568E-01	0.2415459E+06
(45)	5F5F1.0	0.16444E+15	0.13950E+02	0.36983E-01	0.1145475E+06
(45)	5F5F2.0	0.16444E+15	0.13950E+03	0.36983E+00	0.1145475E+06
(45)	5F5F3.0	0.16463E+15	0.33481E+03	0.88861E+00	0.1144164E+06
(45)	7P5P1.0	0.28537E+15	0.10801E+02	0.49691E-01	0.6600656E+05
(45)	7P5P2.0	0.28537E+15	0.18002E+02	0.82819E-01	0.6600656E+05
(45)	7P5P3.0	0.28537E+15	0.20574E+01	0.94651E-02	0.6600656E+05
(45)	6F5F1.0	0.41892E+15	0.42153E-01	0.28459E-03	0.4496403E+05
(45)	6F5F2.0	0.41892E+15	0.42152E+00	0.28468E-02	0.4496403E+05
(45)	6F5F3.0	0.41911E+15	0.10117E+01	0.68355E-02	0.4494382E+05
(45)	7F5F1.0	0.57244E+15	0.44939E-01	0.41472E-03	0.3290556E+05
(45)	7F5F2.0	0.57244E+15	0.44938E+00	0.41472E-02	0.3290556E+05
(45)	7F5F3.0	0.57263E+15	0.10785E+01	0.99565E-02	0.3289473E+05

INTERACTIONS -- QUADRUPOLE -

0.19564E+16 0.83429E+06

25 - SFQ. NUM.

PR	FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		451P1.0	78290.000	1.971	106518.000	39.685	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

W L VAC

26 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(4S)		5D3D1.0	78692.000	4.747	8.559.312	1077.607	349.440

INTERACTIONS -- DIPOLE -  
DESIGNATION

	W	RAA***2	F	W L VAC	
(4S)	4P3D0.0	0.25996E+16	0.29290E+00	0.35569E-01	0.7245852E+04
(4S)	4P3P1.0	0.26000E+16	0.21217E+00	0.98934E-02	0.7244801E+04
(4S)	4P3P2.0	0.25994E+16	0.14145E-01	0.35566E-03	0.7246375E+04
(4S)	5P3D0.0	0.83314E+15	0.10975E+01	0.44224E-01	0.2260909E+05
(4S)	5P3P1.0	0.83295E+15	0.82315E+00	0.11054E-01	0.2261420E+05
(4S)	5P3P2.0	0.83257E+15	0.54877E-01	0.44195E-03	0.2262443E+05
(4S)	6P3D0.0	0.15088E+15	0.17762E+03	0.12961E+01	0.1248439E+06
(4S)	6P3P1.0	0.15084E+15	0.13321E+03	0.32402E+00	0.1248439E+06
(4S)	6P3P2.0	0.15088E+15	0.88809E+01	0.12961E-01	0.1248439E+06
(4S)	7P3D0.0	0.26767E+15	0.12801E+02	0.55240E-01	0.7037294E+05
(4S)	7P3P1.0	0.26899E+15	0.96010E+01	0.41634E-01	0.7002800E+05
(4S)	7P3P2.0	0.26974E+15	0.64009E+00	0.27834E-02	0.6983237E+05
(4S)	8P3D0.0	0.43380E+15	0.23363E+01	0.16339E-01	0.4342162E+05
(4S)	8P3P1.0	0.43380E+15	0.17522E+01	0.12254E-01	0.4342162E+05
(4S)	8P3P2.0	0.43399E+15	0.11682E+00	0.81731E-03	0.4340278E+05

INTERACTIONS -- QUADRUPOLE -

0.16062E+16	0.76325E+06
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27 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(4S)		7S5S2.0	7905P.000	4.936	83559.312	1496.447	1473.716

INTERACTIONS -- DIPOLE -  
DESIGNATION

	W	RAA***2	F	W L VAC	
(4S)	4P5P1.0	0.29408E+16	0.87760E-01	0.69344E-02	0.6405328E+04
(4S)	4P5P2.0	0.29387E+16	0.14626E+00	0.69294E-02	0.6409844E+04
(4S)	4P5P3.0	0.29353E+16	0.20477E+00	0.69215E-02	0.5417246E+04
(4S)	5P5P1.0	0.96952E+15	0.11479E+01	0.26902E-01	0.1942872E+05
(4S)	5P5P2.0	0.96876E+15	0.19131E+01	0.20879E-01	0.1944390E+05
(4S)	5P5P3.0	0.96763E+15	0.26783E+01	0.26844E-01	0.1946661E+05
(4S)	6P5P1.0	0.22736E+15	0.76151E+02	0.46520E+00	0.8285000E+05
(4S)	6P5P2.0	0.22641E+15	0.12692E+03	0.46326E+00	0.8319462E+05
(4S)	6P5P3.0	0.22641E+15	0.17764E+03	0.46327E+00	0.8319462E+05
(4S)	7P5P1.0	0.13694E+15	0.21736E+03	0.47986E+00	0.1375516E+06
(4S)	7P5P2.0	0.13694E+15	0.36226E+03	0.79975E+00	0.1375516E+06
(4S)	7P5P3.0	0.13694E+15	0.50717E+03	0.11197E+01	0.1375516E+06

## 28 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		60SD2.0	79992.000	5.545	83559.312	2101.735	2004.248

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	4PSP1.0	0.31167E+16	0.13337E+00	0.11167E-01	0.6043754E+04
(4S)	4PSP2.0	0.31146E+16	0.22278E+00	0.11161E-01	0.6047777E+04
(4S)	4PSP3.0	0.31112E+16	0.25404E-01	0.91015E-03	0.6054367E+04
(4S)	5PSP1.0	0.11454E+16	0.88334E+00	0.27187E-01	0.1644465E+05
(4S)	5PSP2.0	0.11447E+16	0.14722E+01	0.27169E-01	0.1645548E+05
(4S)	5PSP3.0	0.11436E+16	0.16826E+00	0.22157E-02	0.1647175E+05
(4S)	6PSP1.0	0.40329E+15	0.69035E+01	0.74907E-01	0.4670714E+05
(4S)	6PSP2.0	0.40235E+15	0.11506E+02	0.74632E-01	0.4681644E+05
(4S)	6PSP3.0	0.40235E+15	0.13150E+01	0.60924E-02	0.4681644E+05
(4S)	5F5F1.0	0.15992E+15	0.46892E+01	0.20149E-01	0.1177856E+06
(4S)	5F5F2.0	0.15992E+15	0.46892E+02	0.12090E+00	0.1177855E+06
(4S)	5F5F3.0	0.15973E+15	0.11254E+03	0.20701E+00	0.1179245E+06
(4S)	7PSP1.0	0.38992E+14	0.25526E+03	0.26743E+00	0.4830917E+06
(4S)	7PSP2.0	0.38992E+14	0.42544E+03	0.26743E+00	0.4830917E+06
(4S)	7PSP3.0	0.38992E+14	0.48622E+02	0.21831E-01	0.4830917E+06
(4S)	6F5F1.0	0.94557E+14	0.31091E+02	0.47396E-01	0.1992031E+06
(4S)	6F5F2.0	0.94557E+14	0.31090E+03	0.47395E+00	0.1992031E+06
(4S)	6F5F3.0	0.94748E+14	0.74617E+03	0.11398E+01	0.1988071E+06
(4S)	7F5F1.0	0.24808E+15	0.58412E-05	0.23361E-07	0.7593012E+05
(4S)	7F5F2.0	0.24808E+15	0.58411E-04	0.23361E-06	0.7593012E+05
(4S)	7F5F3.0	0.24827E+15	0.14019E-03	0.56109E-06	0.7587250E+05

## INTERACTIONS -- QUADRUPOLE -

0.22807E+15	0.17543E+07
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## 29 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		60SD0.0	79992.000	5.545	83559.312	2101.735	2004.256

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(4S)	4PSP1.0	0.31167E+16	0.38106E+00	0.63822E-02	0.6043754E+04
(4S)	5PSP1.0	0.11454E+16	0.25238E+01	0.15535E-01	0.1644466E+05
(4S)	6PSP1.0	0.40329E+15	0.19724E+02	0.42747E-01	0.4670714E+05
(4S)	5F5F1.0	0.15992E+15	0.16412E+03	0.14105E+00	0.1177856E+06
(4S)	7PSP1.0	0.38992E+14	0.72933E+03	0.15262E+00	0.4830917E+06
(4S)	6F5F1.0	0.94559E+14	0.10882E+04	0.16588E+01	0.1992031E+06
(4S)	7F5F1.0	0.24808E+15	0.20444E-03	0.81763E-06	0.7593012E+05

## INTERACTIONS -- QUADRUPOLE -

0.22800E+16	0.14570E+07
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30 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		7D5D0.0	80995.000	6.540	83559.312	4209.812	2559.384

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(4S)	4P5P1.0	0.33056E+16	0.19742E+00	0.35069E-02	0.5698328F+04
(4S)	5P5P1.0	0.13344E+16	0.10611E+01	0.76090E-02	0.1411632F+05
(4S)	6P5P1.0	0.59222E+15	0.50285E+01	0.16003E-01	0.3180661E+05
(4S)	5F5F1.0	0.34885E+15	0.62637E+01	0.11742E-01	0.5399568E+05
(4S)	7P5P1.0	0.22792E+15	0.35851E+02	0.43910E-01	0.8254462E+05
(4S)	6F5F1.0	0.94371E+14	0.43575E+03	0.22098E+00	0.1996007E+06
(4S)	7F5F1.0	0.59147E+14	0.20752E+04	0.19788E+01	0.3184713E+06

INTERACTIONS -- QUADRUPOLE -			
		0.24689E+16	0.53903E+07

31 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(4S)		9S5S2.0	81281.000	6.938	83559.312	5817.859	36.328

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(4S)	4P5P1.0	0.33595E+16	0.22092E-01	0.19941E-02	0.5606949E+04
(4S)	4P5P2.0	0.33574E+16	0.36819E-01	0.19929E-02	0.5610410E+04
(4S)	4P5P3.0	0.33540E+16	0.51547E-01	0.19909E-02	0.5616082E+04
(4S)	5P5P1.0	0.13883E+16	0.13062E+00	0.48724E-02	0.1355852E+05
(4S)	5P5P2.0	0.13875E+16	0.21770E+00	0.48696E-02	0.1357583E+05
(4S)	5P5P3.0	0.13864E+16	0.30479E+00	0.48657E-02	0.1358665E+05
(4S)	6P5P1.0	0.64609E+15	0.73966E+00	0.12840E-01	0.2915452E+05
(4S)	6P5P2.0	0.64515E+15	0.12329E+01	0.12822E-01	0.2919708E+05
(4S)	6P5P3.0	0.64515E+15	0.17259E+01	0.12822E-01	0.2919708E+05
(4S)	7P5P1.0	0.28179E+15	0.63733E+01	0.48256E-01	0.6684487E+05
(4S)	7P5P2.0	0.28179E+15	0.10622E+02	0.48255E-01	0.6684487E+05
(4S)	7P5P3.0	0.28179E+15	0.14871E+02	0.48256E-01	0.6684487E+05



PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1D)	113627.000
	2	(3P)	104991.000

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS			
1	(3P) 3P2P0.5	881.00	0.0		
2	(1D) 3P2P0.5	881.00	0.0		
3	(3P) 4S4P0.5	71954.00	72484.00	72622.00	
4	(3P) 4S2P0.5	74221.00	74661.00		
5	(3P) 4P4P0.5	82914.00	83126.00	83360.00	
6	(3P) 4P4D0.5	83889.00	84127.00	84460.00	84684.00
7	(1D) 4S2D1.5	84115.00	84117.00		
8	(3P) 4P2D1.5	84643.00	84964.00		
9	(3P) 4P2S0.5	85239.00			
10	(3P) 4P2P0.5	85438.00	85913.00		
11	(3P) 4P4S1.5	85730.00			
12	(1D) 4P2P0.5	86309.00	86464.00		
13	(3P) 3D4D0.5	86268.00	86148.00	88076.00	88975.00
14	(3P) 3D4F1.5	90189.00	90483.00	90744.00	90944.00
15	(3P) 5S4P0.5	91123.00	91169.00	91065.00	
16	(3P) 3D2F2.5	91085.00	91304.00		
17	(3P) 5S4P0.5	91217.00	91360.00	91452.00	
18	(3P) 3D4P0.5	91656.00	91677.00	92147.00	
19	(3P) 3D2D1.5	91339.00	91534.00		
20	(3P) 3D2P0.5	91902.00	92190.00		
21	(3P) 5S2P0.5	92135.00	92598.00		
22	(3P) 5P4P0.5	94477.00	94659.00	94969.00	
23	(3P) 5P4D0.5	94727.00	94822.00	95309.00	95530.00
24	(1D) 4P2F2.5	95140.00	95176.00		
25	(3P) 5P2D1.5	95346.00	95702.00		
26	(3P) 5P2S0.5	95593.00			
27	(3P) 5P4S1.5	95608.00			
28	(3P) 4D4D0.5	95696.00	95782.00	95693.00	95991.00
29	(3P) 5P2P0.5	96308.00	96569.00		
30	(1D) 4P2D1.5	96478.00	96481.00		
31	(3P) 4D4F1.5	96490.00	96726.00	96941.00	97255.00
32	(3P) 4D2F2.5	96629.00	97179.00		
33	(3P) 6S4P0.5	97233.00	97476.00	98095.00	
34	(3P) 4D4P0.5	97334.00	98640.00	98641.00	
35	(3P) 4D2D1.5	97529.00	97803.00		
36	(3P) 6P4P0.5	98911.00	98911.00	98911.00	
37	(3P) 6P4D0.5	99015.00	99015.00	99015.00	99015.00
38	(3P) 5D4D0.5	99196.00	99264.00	99350.00	99403.00
39	(3P) 5D4F1.5	99513.00	99664.00	99761.00	99945.00
40	(3P) 4D2P0.5	99530.00	99707.00		
41	(3P) 6P2P0.5	99819.00	99879.00		
42	(3P) 5D4P0.5	99984.00	100233.00	100167.00	
43	(3P) 5D2F2.5	100142.00	100535.00		
44	(3P) 5D2D1.5	100245.00	100342.00		

# TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS			
45	(3P) 5D2P0.5	100700.00	100733.00		
46	(3P) 6D4D0.5	100941.00	101041.00	101048.00	100985.00

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)	*	3P2P1.5	0.0	0.984	113627.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION #

RAA\*\*2

F

W L VAC

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)	*	3P2P1.5	0.0	1.024	104991.000	0.0	0.0

INTERACTIONS -- DIPOLE --  
DESIGNATION #

RAA\*\*2

F

W L VAC

## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)	*	3P2P0.5	881.000	0.984	113627.000	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION #

RAA\*\*2

F

W L VAC

## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S4P0.5	71954.000	1.839	104991.000	30.295	27.814

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	4P4P0.5	0.20645E+16	0.15689E+01	0.52218E-01	0.9124086E+04
(3P)	4P4P1.5	0.21044E+16	0.76446E+01	0.26614E+00	0.8950945E+04
(3P)	4P4D0.5	0.22481E+16	0.76494E+01	0.27724E+00	0.8378715E+04
(3P)	4P4D1.5	0.22930E+16	0.76494E+01	0.28277E+00	0.6214898E+04
(3P)	4P4S1.5	0.25949E+16	0.26727E+01	0.12017E+00	0.7259000E+04
(3P)	5P4P0.5	0.42425E+16	0.17094E-02	0.11692E-03	0.4439902E+04
(3P)	5P4P1.5	0.42768E+16	0.85469E-02	0.58930E-03	0.4404312E+04
(3P)	5P4D0.5	0.42896E+16	0.75466E-01	0.52188E-02	0.4391164E+04
(3P)	5P4D1.5	0.43075E+16	0.75465E-01	0.52406E-02	0.4372922E+04
(3P)	5P4S1.5	0.44556E+16	0.64427E-01	0.46278E-02	0.4227613E+04
(3P)	6P4P0.5	0.50778E+16	0.56915E-03	0.46591E-04	0.3709612E+04
(3P)	6P4P1.5	0.50778E+16	0.28457E-02	0.23295E-03	0.3709612E+04
(3P)	6P4D0.5	0.50973E+16	0.12261E-05	0.10076E-06	0.3695355E+04
(3P)	6P4D1.5	0.50973E+16	0.12261E-05	0.10076E-06	0.3695355E+04

## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S4P1.5	72484.000	1.839	104991.000	30.295	27.814

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	4P4P0.5	0.19646E+16	0.39223E+01	0.12423E+00	0.9587727E+04
(3P)	4P4P1.5	0.20046E+16	0.12551E+01	0.40560E-01	0.9396727E+04
(3P)	4P4P2.5	0.20487E+16	0.42362E+01	0.13991E+00	0.9194555E+04
(3P)	4P4D0.5	0.21483E+16	0.76494E+00	0.26493E-01	0.8768082E+04
(3P)	4P4D1.5	0.21931E+16	0.48956E+01	0.17309E+00	0.8588852E+04
(3P)	4P4D2.5	0.22596E+16	0.96383E+01	0.35111E+00	0.8336109E+04
(3P)	4P4S1.5	0.24951E+16	0.28726E+01	0.11555E+00	0.7549445E+04
(3P)	5P4P0.5	0.41427E+16	0.42735E-02	0.28541E-03	0.4546898E+04
(3P)	5P4P1.5	0.41770E+16	0.13675E-02	0.92083E-04	0.4509582E+04
(3P)	5P4P2.5	0.42354E+16	0.46154E-02	0.31514E-03	0.4447406E+04
(3P)	5P4D0.5	0.41098E+16	0.75466E-02	0.50974E-03	0.4495793E+04
(3P)	5P4D1.5	0.42077E+16	0.48293E-01	0.32763E-02	0.4476076E+04
(3P)	5P4D2.5	0.42994E+16	0.95087E-01	0.65908E-02	0.4381160E+04
(3P)	5P4S1.5	0.43558E+16	0.64427E-01	0.45241E-02	0.4324508E+04
(3P)	6P4P0.5	0.49779E+16	0.14228E-02	0.11419E-03	0.3784009E+04
(3P)	6P4P1.5	0.49779E+16	0.45529E-03	0.36538E-04	0.3784009E+04
(3P)	6P4P2.5	0.49779E+16	0.15367E-02	0.12332E-03	0.3784009E+04
(3P)	6P4D0.5	0.49975E+16	0.12261E-06	0.98783E-08	0.3769176E+04
(3P)	6P4D1.5	0.49975E+16	0.78470E-06	0.63221E-07	0.3769176E+04
(3P)	6P4D2.5	0.49975E+16	0.15449E-05	0.12447E-06	0.3769176E+04

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## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S4P2.5	72822.000	1.839	104991.000	30.295	27.814

INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(3P) 4P4P1.5	0.19409E+16	0.28241E+01	0.88368E-01	0.9704969E+04
(3P) 4P4P2.5	0.19350E+16	0.65895E+01	0.21067E+00	0.9403405E+04
(3P) 4P4D1.5	0.21295E+16	0.30598E+00	0.10504E-01	0.8845641E+04
(3P) 4P4D2.5	0.21960E+16	0.27538E+01	0.97490E-01	0.8577797E+04
(3P) 4P4D3.5	0.22344E+16	0.12239E+02	0.44087E+00	0.8430281E+04
(3P) 4P4S1.5	0.24314E+16	0.26727E+01	0.11260E+00	0.7747133E+04
(3P) 5P4P1.5	0.41133E+16	0.36770E-02	0.20404E-03	0.4579383E+04
(3P) 5P4P2.5	0.41717E+16	0.71795E-02	0.48285E-03	0.4515281E+04
(3P) 5P4D1.5	0.41440E+16	0.30187E-02	0.20167E-03	0.4545453E+04
(3P) 5P4D2.5	0.42358E+16	0.27168E-01	0.18552E-02	0.4447012E+04
(3P) 5P4D3.5	0.42774E+16	0.12075E+00	0.83264E-02	0.4403730E+04
(3P) 5P4S1.5	0.42921E+16	0.64428E-01	0.44581E-02	0.4380656E+04
(3P) 6P4P1.5	0.49143E+16	0.10245E-02	0.81163E-04	0.3833033E+04
(3P) 6P4P2.5	0.49143E+16	0.23904E-02	0.18938E-03	0.3833033E+04
(3P) 6P4D2.5	0.49338E+16	0.44140E-06	0.35109E-07	0.3817814E+04
(3P) 6P4D3.5	0.49338E+16	0.19618E-05	0.15604E-06	0.3817814E+04

## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4S2P0.5	74221.000	1.901	104991.000	34.472	31.890

INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(3P) 4P2D1.5	0.19631E+16	0.17511E+02	0.55419E+00	0.9595086E+04
(3P) 4P2S0.5	0.20754E+16	0.34644E+01	0.11591E+00	0.9076055E+04
(3P) 4P2P0.5	0.21129E+16	0.67917E+01	0.23134E+00	0.8915039E+04
(3P) 4P2P1.5	0.22024E+16	0.33959E+01	0.12057E+00	0.8552855E+04
(3P) 5P2D1.5	0.39886E+16	0.16386E+00	0.10536E-01	0.4722547E+04
(3P) 5P2S0.5	0.40257E+16	0.34052E-01	0.22100E-02	0.4679016E+04
(3P) 5P2P0.5	0.41604E+16	0.27425E+00	0.18394E-01	0.4527547E+04
(3P) 5P2P1.5	0.42134E+16	0.13713E+00	0.93145E-02	0.4470672E+04
(3P) 6P2P0.5	0.48218E+16	0.78525E-01	0.61041E-02	0.3906555E+04
(3P) 6P2P1.5	0.48368E+16	0.39264E-01	0.30617E-02	0.3694364E+04

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## 8 - SEQ. NUM.

PR EE DESIG (3P)	LEVEL 452P1.5	N EFF 1.901	S. LIMIT 104991.000	RAA**2 34.472	S. RAA**2 31.890
INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC.	
(3P) 4P2D1.5	0.18426E+16	0.17511E+01	0.52016E-01	0.1022286E+05	
(3P) 4P2J2.5	0.19068E+16	0.15760E+02	0.48446E+00	0.9d78492E+04	
(3P) 4P2S0.5	0.19549E+16	0.34644E+01	0.10918E+00	0.9635766E+04	
(3P) 4P2P0.5	0.19923E+16	0.16960E+01	0.54538E-01	0.9454477E+04	
(3P) 4P2P1.5	0.20818E+16	0.84898E+01	0.28493E+00	0.9046133E+04	
(3P) 5P2D1.5	0.36681E+16	0.16386E-01	0.10218E-02	0.4869734E+04	
(3P) 5P2D2.5	0.39257E+16	0.14747E+00	0.93331E-02	0.4798230E+04	
(3P) 5P2S0.5	0.39052E+16	0.34052E-01	0.21438E-02	0.4823461E+04	
(3P) 5P2P0.5	0.40399E+16	0.68564E-01	0.44655E-02	0.4662656E+04	
(3P) 5P2P1.5	0.40928E+16	0.34282E+00	0.22620E-01	0.4602355E+04	
(3P) 6P2P0.5	0.47012E+16	0.19632E-01	0.14879E-02	0.4006731E+04	
(3P) 6P2P1.5	0.47163E+16	0.98156E-01	0.74633E-02	0.3993929E+04	

## 9 - SEQ. NUM.

PR EE DESIG (3P)	LEVEL 4P4P0.5	N EFF 2.244	S. LIMIT 104991.000	RAA**2 50.733	S. RAA**2 61.847
INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	W L VAC	
(3P) 4S4P0.5	0.20645E+16	0.15689E+01	0.52218E-01	0.9124086E+04	
(3P) 4S4P1.5	0.19546E+16	0.78446E+01	0.12423E+00	0.9567727E+04	
(3P) 3D4D0.5	0.10085E+16	0.11366E+02	0.18479E+00	0.1867762E+05	
(3P) 3D4D1.5	0.98590E+15	0.11366E+02	0.18065E+00	0.1910584E+05	
(3P) 5S4P0.5	0.15463E+16	0.11997E+01	0.29906E-01	0.1216175E+05	
(3P) 5S4P1.5	0.15550E+16	0.59983E+01	0.15037E+00	0.1211387E+05	
(3P) 5S4P0.5	0.15640E+16	0.10964E+01	0.27645E-01	0.1204384E+05	
(3P) 5S4P1.5	0.15909E+16	0.54821E+01	0.14060E+00	0.1163992E+05	
(3P) 3D4P0.5	0.16467E+16	0.14725E+01	0.39091E-01	0.1143903E+05	
(3P) 3D4P1.5	0.16506E+16	0.73625E+01	0.19592E+00	0.1141161E+05	
(3P) 4D4D0.5	0.24077E+16	0.21552E+01	0.83653E-01	0.7823500E+04	
(3P) 4D4D1.5	0.24239E+16	0.21551E+01	0.84215E-01	0.7771215E+04	
(3P) 6S4P0.5	0.26972E+16	0.68304E-01	0.29700E-02	0.6983727E+04	
(3P) 6S4P1.5	0.27430E+16	0.34152E+00	0.15102E-01	0.6867167E+04	
(3P) 4D4P0.5	0.27102E+16	0.64207E-01	0.26116E-02	0.6934812E+04	
(3P) 4D4P1.5	0.28492E+16	0.32103E+00	0.14746E-01	0.6611133E+04	
(3P) 5D4D0.5	0.30670E+16	0.69400E+00	0.34314E-01	0.6141750E+04	
(3P) 5D4D1.5	0.30798E+16	0.69400E+00	0.34457E-01	0.6116207E+04	
(3P) 5D4P0.5	0.32154E+16	0.14844E-02	0.76946E-04	0.5858230E+04	
(3P) 5D4P1.5	0.32623E+16	0.74214E-02	0.39034E-03	0.5774004E+04	
(3P) 6D4D0.5	0.33957E+16	0.29415E+00	0.16102E-01	0.5547234E+04	
(3P) 6D4D1.5	0.34145E+16	0.29414E+00	0.16192E-01	0.5516629E+04	

## INTERACTIONS -- QUADRUPOLE -

0.30133E+16 0.81391E+03

## 10 - SEQ. NUM.

PR (3P)	EE 4P4P1.5	DESIG 83126.000	LEVEL 2.244	N EFF 104991.000	S. LIMIT 50.733	RAA**2 61.847	S. RAA**2
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INTERACTIONS -- DIPOLE --  
DESIGNATION

		#	RAA**2	F	W L VAC
(3P)	4S4P0.5	0.21044E+16	0.39223E+01	0.26614E+00	0.8950945E+04
(3P)	4S4P1.5	0.20046E+16	0.12551E+01	0.40500E-01	0.9396727E+04
(3P)	4S4P2.5	0.17409E+16	0.42362E+01	0.88368E-01	0.9704969E+04
(3P)	3D4D0.5	0.96857E+15	0.11366E+01	0.17748E-01	0.1944766E+05
(3P)	3D4D1.5	0.94597E+15	0.72742E+01	0.11093E+00	0.1991238E+05
(3P)	3D4D2.5	0.93241E+15	0.14321E+02	0.21527E+00	0.2020202E+05
(3P)	5S4P0.5	0.15064E+16	0.29992E+01	0.72833E-01	0.1250469E+05
(3P)	5S4P1.5	0.15150E+16	0.95969E+00	0.23440E-01	0.1243317E+05
(3P)	5S4P2.5	0.14954E+16	0.32392E+01	0.78091E-01	0.1259604E+05
(3P)	5S4P0.5	0.15241E+16	0.27410E+01	0.67347E-01	0.1235941E+05
(3P)	5S4P1.5	0.15510E+16	0.67709E+00	0.21931E-01	0.1214476E+05
(3P)	5S4P2.5	0.15643E+16	0.29604E+01	0.74849E-01	0.1201057E+05
(3P)	3D4P0.5	0.16008E+16	0.36813E+01	0.95356E-01	0.1172333E+05
(3P)	3D4P1.5	0.16107E+16	0.11780E+01	0.30588E-01	0.1169454E+05
(3P)	3D4P2.5	0.16922E+16	0.39758E+01	0.10891E+00	0.1106524E+05
(3P)	4D4D0.5	0.23677E+16	0.21552E+00	0.82266E-02	0.7955449E+04
(3P)	4D4D1.5	0.23839E+16	0.13793E+01	0.53011E-01	0.7901391E+04
(3P)	4D4D2.5	0.24049E+16	0.27155E+01	0.10528E+00	0.7832691E+04
(3P)	6S4P0.5	0.26573E+16	0.17076E+00	0.73151E-02	0.7088676E+04
(3P)	6S4P1.5	0.27030E+16	0.54640E-01	0.23810E-02	0.6968641E+04
(3P)	6S4P2.5	0.28196E+16	0.18442E+00	0.83832E-02	0.6680473E+04
(3P)	4D4P0.5	0.26763E+16	0.16051E+00	0.69255E-02	0.7038285E+04
(3P)	4D4P1.5	0.26093E+16	0.51363E-01	0.23262E-02	0.6705105E+04
(3P)	4D4P2.5	0.29225E+16	0.17336E+00	0.81678E-02	0.6445375E+04
(3P)	5D4D0.5	0.30270E+16	0.69401E-01	0.33867E-02	0.6222773E+04
(3P)	5D4D1.5	0.30398E+16	0.44416E+00	0.21767E-01	0.6196555E+04
(3P)	5D4D2.5	0.30560E+16	0.87445E+00	0.43082E-01	0.6163707E+04
(3P)	5D4P0.5	0.31755E+16	0.37109E-02	0.18997E-03	0.5931898E+04
(3P)	5D4P1.5	0.32224E+16	0.11874E-02	0.61687E-04	0.5845559E+04
(3P)	5D4P2.5	0.32099E+16	0.40079E-02	0.20740E-03	0.5868199E+04
(3P)	6D4D0.5	0.33557E+16	0.29415E-01	0.15913E-02	0.5613246E+04
(3P)	6D4D1.5	0.33746E+16	0.18625E+00	0.10242E-01	0.5581914E+04
(3P)	6D4D2.5	0.33759E+16	0.37063E+00	0.20171E-01	0.5579734E+04

## INTERACTIONS -- QUADRUPOLE --

0.29733E+16	0.64919E+03
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## 11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P4D0.5	83889.000	2.310	104991.000	57.721	71.007

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(3P)	4S4P0.5	0.22481E+16	0.76494E+01	0.27724E+00	0.8378715E+04
(3P)	4S4P1.5	0.21483E+16	0.15299E+01	0.26473E-01	0.8768082E+04
(3P)	3D4D0.5	0.82485E+15	0.23778E+01	0.31865E-01	0.2283620E+05
(3P)	3D4D1.5	0.80225E+15	0.23978E+01	0.31012E-01	0.2347969E+05
(3P)	3D4F1.5	0.11067E+16	0.33338E+02	0.63780E+00	0.1587302E+05
(3P)	5S4P0.5	0.13626E+16	0.82748E+01	0.18178E+00	0.1302361E+05
(3P)	5S4P1.5	0.13713E+16	0.16550E+01	0.36587E-01	0.1373626E+05
(3P)	5S4P0.5	0.13803E+16	0.76742E+01	0.17078E+00	0.1364629E+05
(3P)	5S4P1.5	0.14073E+16	0.15349E+01	0.34822E-01	0.1336509E+05
(3P)	3D4P0.5	0.14630E+16	0.33311E+00	0.78567E-02	0.1287496E+05
(3P)	3D4P1.5	0.14070E+16	0.06622E-01	0.15756E-02	0.1284027E+05
(3P)	4D4D0.5	0.22240E+16	0.06420E+00	0.23815E-01	0.8469551E+04
(3P)	4D4D1.5	0.22402E+16	0.06422E+00	0.23969E-01	0.8408305E+04
(3P)	4D4F1.5	0.23736E+16	0.94516E+00	0.36167E-01	0.7935875E+04
(3P)	6S4P0.5	0.25135E+16	0.38045E+00	0.15660E-01	0.7494004E+04
(3P)	6S4P1.5	0.25593E+16	0.77291E-01	0.31890E-02	0.7359973E+04
(3P)	4D4P0.5	0.25326E+16	0.93176E-02	0.38042E-03	0.7437707E+04
(3P)	4D4P1.5	0.26656E+16	0.18035E-02	0.80080E-04	0.7066637E+04
(3P)	5D4D0.5	0.28833E+16	0.16712E+00	0.77683E-02	0.6532957E+04
(3P)	5D4D1.5	0.28961E+16	0.16713E+00	0.78030E-02	0.6504062E+04
(3P)	5D4F1.5	0.29430E+16	0.96035E+00	0.45565E-01	0.6400406E+04
(3P)	5D4P0.5	0.30317E+16	0.14012E-02	0.71415E-04	0.6213109E+04
(3P)	5D4P1.5	0.30786E+16	0.29223E-03	0.14504E-04	0.6118453E+04
(3P)	6D4D0.5	0.32120E+16	0.55442E-01	0.28709E-02	0.5804414E+04
(3P)	6D4D1.5	0.32308E+16	0.55444E-01	0.28878E-02	0.5830223E+04

## INTERACTIONS -- QUADRUPOLE --

0.28492E+16	0.23874E+04
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## 12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)		4S2D1.5	84115.000	1.928	113627.000	36.391	30.640

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(1D)	4P2P0.5	0.19202E+16	0.54380E+01	0.16834E+00	0.9809691E+04
(1D)	4P2P1.5	0.17494E+16	0.10876E+01	0.34180E-01	0.9662766E+04
(1D)	4P2F2.5	0.20767E+16	0.14695E+02	0.49199E+00	0.9070293E+04
(1D)	4P2D1.5	0.23288E+16	0.84770E+01	0.31825E+00	0.8088646E+04
(1D)	4P2D2.5	0.23293E+16	0.94191E+00	0.35371E-01	0.8080687E+04

PR EE DESIG (3P)	LEVEL AP4U1.5	N EFF 2.310	S. LIMIT 104991.000	RAA**2 57.721	S. RAA**2 71.007
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INTERACTIONS -- DIPOLE --  
DESIGNATION #

RAA\*\*2

F

W L VAC

(3P)	4S4P0.5	0.22930E+16	0.38247E+01	0.28277E+00	0.8214898E+04
(3P)	4S4P1.5	0.21931E+16	0.48956E+01	0.17309E+00	0.8588852E+04
(3P)	4S4P2.5	0.21295E+16	0.45897E+00	0.10504E-01	0.8845641E+04
(3P)	3D4D0.5	0.78002E+15	0.11989E+01	0.15076E-01	0.2414675E+05
(3P)	3D4D1.5	0.75742E+15	0.19182E+01	0.23423E-01	0.2486943E+05
(3P)	3D4D2.5	0.74385E+15	0.16785E+01	0.20126E-01	0.2532286E+05
(3P)	3D4F1.5	0.11419E+16	0.66676E+01	0.12274E+00	0.1649620E+05
(3P)	3D4F2.5	0.11972E+16	0.26670E+02	0.51477E+00	0.1573316E+05
(3P)	5S4P0.5	0.13176E+16	0.41374E+01	0.87898E-01	0.1429368E+05
(3P)	5S4P1.5	0.13205E+16	0.52959E+01	0.11325E+00	0.1420051E+05
(3P)	5S4P2.5	0.13069E+16	0.49649E+00	0.10460E-01	0.1441337E+05
(3P)	5S4P0.5	0.13355E+16	0.38371E+01	0.82614E-01	0.1410437E+05
(3P)	5S4P1.5	0.13624E+16	0.49115E+01	0.10788E+00	0.1382552E+05
(3P)	5S4P2.5	0.13798E+16	0.46046E+00	0.10242E-01	0.1365187E+05
(3P)	3D4P0.5	0.14182E+16	0.16655E+00	0.36080E-02	0.1328197E+05
(3P)	3D4P1.5	0.14222E+16	0.21319E+00	0.48878E-02	0.1324503E+05
(3P)	3D4P2.5	0.15107E+16	0.19987E-01	0.48676E-03	0.1246882E+05
(3P)	4D4D0.5	0.21792E+16	0.33211E+00	0.11668E-01	0.8643789E+04
(3P)	4D4D1.5	0.21954E+16	0.53137E+00	0.18807E-01	0.8580008E+04
(3P)	4D4D2.5	0.22163E+16	0.46495E+00	0.16613E-01	0.8499062E+04
(3P)	4D4F1.5	0.23268E+16	0.18903E+00	0.70968E-02	0.8088648E+04
(3P)	4D4F2.5	0.23732E+16	0.75612E+00	0.28929E-01	0.7937137E+04
(3P)	6S4P0.5	0.24687E+16	0.19323E+00	0.76902E-02	0.7630090E+04
(3P)	6S4P1.5	0.25145E+16	0.24733E+00	0.10026E-01	0.7491195E+04
(3P)	6S4P2.5	0.26311E+16	0.23187E-01	0.98354E-03	0.7159219E+04
(3P)	4D4P0.5	0.24877E+16	0.46588E-02	0.18684E-03	0.7571742E+04
(3P)	4D4P1.5	0.26207E+16	0.59633E-02	0.25195E-03	0.7187520E+04
(3P)	4D4P2.5	0.27339E+16	0.55906E-03	0.24041E-04	0.6885898E+04
(3P)	5D4D0.5	0.28385E+16	0.83563E-01	0.38239E-02	0.6636137E+04
(3P)	5D4D1.5	0.28513E+16	0.13370E+00	0.61456E-02	0.6606328E+04
(3P)	5D4D2.5	0.28675E+16	0.11699E+00	0.54081E-02	0.6509004E+04
(3P)	5D4F1.5	0.28982E+16	0.19207E+00	0.89741E-02	0.6499414E+04
(3P)	5D4F2.5	0.29266E+16	0.76827E+00	0.30248E-01	0.6436240E+04
(3P)	5D4P0.5	0.29469E+16	0.73057E-03	0.35179E-04	0.6306359E+04
(3P)	5D4P1.5	0.30338E+16	0.93514E-03	0.45737E-04	0.6208863E+04
(3P)	5D4P2.5	0.30214E+16	0.87070E-04	0.42703E-05	0.6234410E+04
(3P)	6D4D0.5	0.31672E+16	0.27722E-01	0.14155E-02	0.5947422E+04
(3P)	6D4D1.5	0.31860E+16	0.44354E-01	0.22782E-02	0.5912262E+04
(3P)	6D4D2.5	0.31873E+16	0.38810E-01	0.19942E-02	0.5909812E+04

## INTERACTIONS -- QUADRUPOLE --

0.28044E+16	0.17655E+04
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ORIGINAL PAGE IS  
OF POOR QUALITY



PR EE DESIG (3P)	LEVEL 4P402.5	N EFF 2.310	S. LIMIT 104991.000	RAA**2 57.721	S. RAA**2 71.007
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(3P) 4S4P1.5	0.22596E+16	0.64255E+01	0.35111E+00	0.6336109E+04
(3P) 4S4P2.5	0.21700E+16	0.27538E+01	0.97490E-01	0.8577797E+04
(3P) 3D4D1.5	0.69092E+15	0.11190E+01	0.12404E-01	0.2726281E+05
(3P) 3D4D2.5	0.67736E+15	0.27631E+01	0.30173E-01	0.2780868E+05
(3P) 3D4D3.5	0.84670E+15	0.91340E+00	0.12469E-01	0.2224694E+05
(3P) 3D4F1.5	0.10754E+16	0.31751E+00	0.55045E-02	0.1751620E+05
(3P) 3D4F2.5	0.11308E+16	0.58058E+01	0.10584E+00	0.1665834E+05
(3P) 3D4F3.5	0.11799E+16	0.27214E+02	0.51767E+00	0.1596424E+05
(3P) 5S4P1.5	0.12600E+16	0.69508E+01	0.14119E+00	0.1494991E+05
(3P) 5S4P2.5	0.12404E+16	0.29789E+01	0.59509E-01	0.1518603E+05
(3P) 5S4P1.5	0.12900E+16	0.64464E+01	0.13468E+00	0.1453488E+05
(3P) 5S4P2.5	0.13133E+16	0.27627E+01	0.58493E-01	0.1434309E+05
(3P) 3D4P1.5	0.13557E+16	0.27981E+00	0.61153E-02	0.1369468E+05
(3P) 3D4P2.5	0.14442E+16	0.11992E+00	0.27920E-02	0.1304291E+05
(3P) 4D4D1.5	0.21209E+16	0.30997E+00	0.10650E-01	0.8647988E+04
(3P) 4D4D2.5	0.21498E+16	0.76541E+00	0.26528E-01	0.8761937E+04
(3P) 4D4D3.5	0.21683E+16	0.25304E+00	0.80451E-02	0.8687340E+04
(3P) 4D4F1.5	0.22623E+16	0.90015E-02	0.32830E-03	0.8326395E+04
(3P) 4D4F2.5	0.23067E+16	0.16460E+00	0.61210E-02	0.8165930E+04
(3P) 4D4F3.5	0.23472E+16	0.77155E+00	0.29196E-01	0.8025035E+04
(3P) 6S4P1.5	0.24460E+16	0.32462E+00	0.12811E-01	0.7694672E+04
(3P) 6S4P2.5	0.25640E+16	0.13912E+00	0.57521E-02	0.7344840E+04
(3P) 4D4P1.5	0.25542E+16	0.78268E-02	0.32229E-03	0.7374029E+04
(3P) 4D4P2.5	0.26674E+16	0.33543E-02	0.14425E-03	0.7061645E+04
(3P) 5D4D1.5	0.27848E+16	0.77991E-01	0.35014E-02	0.6764066E+04
(3P) 5D4D2.5	0.28010E+16	0.19259E+00	0.80904E-02	0.6724949E+04
(3P) 5D4D3.5	0.28110E+16	0.63667E-01	0.28852E-02	0.6701062E+04
(3P) 5D4F1.5	0.28317E+16	0.91462E-02	0.41753E-03	0.6652031E+04
(3P) 5D4F2.5	0.28601E+16	0.16724E+00	0.77115E-02	0.6585879E+04
(3P) 5D4F3.5	0.28784E+16	0.78395E+00	0.36379E-01	0.6544074E+04
(3P) 5D4P1.5	0.27673E+16	0.12274E-02	0.58714E-04	0.6347996E+04
(3P) 5D4P2.5	0.29549E+16	0.52602E-03	0.25058E-04	0.6374703E+04
(3P) 6D4D1.5	0.31195E+16	0.25674E-01	0.13012E-02	0.6038261E+04
(3P) 6D4D2.5	0.31208E+16	0.63890E-01	0.32145E-02	0.6035730E+04
(3P) 6D4D3.5	0.31090E+16	0.21121E-01	0.10586E-02	0.6058770E+04

INTERACTIONS -- QUADRUPOLE -

0.27379E+16	0.14546E+04
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ORIGINAL PAGE IS  
OF POOR QUALITY

15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P403.5	84684.000	2.310	104991.000	57.721	71.007

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	# L VAC	
(3P)	454P2.5	0.22344E+16	0.91794E+01	0.44087E+00	0.8430291E+04
(3P)	3D402.5	0.63893E+15	0.68509E+00	0.70568E-02	0.2948113E+05
(3P)	3D403.5	0.80827E+15	0.41105E+01	0.53562E-01	0.2330459E+05
(3P)	3D4F2.5	0.10923E+16	0.17009E+00	0.29953E-02	0.1724435E+05
(3P)	3D4F3.5	0.11415E+16	0.34018E+01	0.62602E-01	0.1650165E+05
(3P)	3D4F4.5	0.11792E+16	0.29766E+02	0.56585E+00	0.1597444E+05
(3P)	554P2.5	0.12020E+16	0.99298E+01	0.19241E+00	0.1557152E+05
(3P)	554P2.5	0.12749E+16	0.92092E+01	0.18927E+00	0.1477541E+05
(3P)	3D4P2.5	0.14056E+16	0.39973E+00	0.90591E-02	0.1339943E+05
(3P)	4D402.5	0.21114E+16	0.18978E+00	0.64597E-02	0.8921402E+04
(3P)	4D403.5	0.21298E+16	0.11386E+01	0.39097E-01	0.5844078E+04
(3P)	4D4F2.5	0.22683E+16	0.48223E-02	0.17634E-03	0.8304266E+04
(3P)	4D4F3.5	0.23088E+16	0.96445E-01	0.35898E-02	0.8158602E+04
(3P)	4D4F4.5	0.23679E+16	0.84390E+00	0.32215E-01	0.7954816E+04
(3P)	654P2.5	0.25262E+16	0.46375E+00	0.18886E-01	0.7456562E+04
(3P)	4D4P2.5	0.26290E+16	0.11181E-01	0.47390E-03	0.7164863E+04
(3P)	5D402.5	0.27626E+16	0.47750E-01	0.21266E-02	0.6818488E+04
(3P)	5D403.5	0.27725E+16	0.28650E+00	0.12806E-01	0.6793937E+04
(3P)	5D4F2.5	0.28217E+16	0.48998E-02	0.22289E-03	0.6675566E+04
(3P)	5D4F3.5	0.28400E+16	0.97995E-01	0.44667E-02	0.6632617E+04
(3P)	5D4F4.5	0.28746E+16	0.85746E+00	0.39737E-01	0.6552648E+04
(3P)	5D4P2.5	0.29165E+16	0.17534E-02	0.82440E-04	0.6458695E+04
(3P)	6D402.5	0.30624E+16	0.15841E-01	0.78719E-03	0.6110973E+04
(3P)	6D403.5	0.30705E+16	0.95045E-01	0.47049E-02	0.6134590E+04

INTERACTIONS -- QUADRUPOLE -	
0.26995E+16	0.23875E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P202.5	84984.000	2.333	104991.000	60.398	60.372

INTERACTIONS -- DIPOLE -  
DESIGNATION #

DESIGNATION	#	RAA**2	F	# L VAC
(3P)	4S2P1.5	0.19068E+16	0.10506E+02	0.48446E+00
(3P)	3D2F2.5	0.11493E+16	0.16653E+01	0.30854E-01
(3P)	3D2F3.5	0.11905E+16	0.33306E+02	0.63922E+00
(3P)	3D2D1.5	0.11971E+16	0.41791E+00	0.80650E-02
(3P)	3D2D2.5	0.12338E+16	0.58506E+01	0.11637E+00
(3P)	3D2P1.5	0.13574E+16	0.41342E+00	0.90468E-02
(3P)	5S2P1.5	0.14342E+16	0.71800E+01	0.16601E+00
(3P)	4D2F2.5	0.22312E+16	0.47495E-01	0.17084E-02
(3P)	4D2F3.5	0.22971E+16	0.94990E+00	0.35177E-01
(3P)	4D2D1.5	0.23630E+16	0.22788E-03	0.86812E-05
(3P)	4D2D2.5	0.24147E+16	0.31902E-02	0.12419E-03
(3P)	4D2P1.5	0.27733E+16	0.16603E-01	0.74233E-03
(3P)	5D2F2.5	0.28552E+16	0.16458E-03	0.75756E-05
(3P)	5D2F3.5	0.29367E+16	0.32916E-02	0.15594E-03
(3P)	5D2D1.5	0.28746E+16	0.56408E-03	0.26141E-04
(3P)	5D2D2.5	0.28929E+16	0.78970E-02	0.36830E-03
(3P)	5D2P1.5	0.29666E+16	0.25758E-02	0.12319E-03

INTERACTIONS -- QUADRUPOLE -

0.19613E+16	0.18626E+04
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## 17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(3P)		4P4S1.5	85730.000	2.386	104991.000	66.687	82.040

 INTERACTIONS -- DIPOLE --  
 DESIGNATION                      W

			RAA**2	F	W L VAC
(JP)	4S4P0.5	0.25949E+16	0.14353E+01	0.12017E+00	0.725900QE+04
(JP)	4S4P1.5	0.24951E+16	0.26726E+01	0.11555E+00	0.7549445E+04
(JP)	4S4P2.5	0.24314E+16	0.43090E+01	0.11260E+00	0.7747135E+04
(3P)	5S4P0.5	0.10159E+16	0.22956E+01	0.37595E-01	0.1854255E+05
(3P)	5S4P1.5	0.10245E+16	0.45912E+01	0.75831E-01	0.1838573E+05
(3P)	5S4P2.5	0.10049E+16	0.68869E+01	0.11157E+00	0.1874414E+05
(JP)	5S4P0.5	0.10336E+16	0.21610E+01	0.30008E-01	0.1822469E+05
(3P)	5S4P1.5	0.10605E+16	0.43220E+01	0.73892E-01	0.1776195E+05
(3P)	5S4P2.5	0.10776E+16	0.64831E+01	0.11265E+00	0.1747641E+05
(3P)	3D4P0.5	0.11163E+16	0.75244E+01	0.13541E+00	0.1687479E+05
(3P)	3D4P1.5	0.11202E+16	0.15049E+02	0.27177E+00	0.1681520E+05
(3P)	3D4P2.5	0.12087E+16	0.22573E+02	0.43957E+00	0.1558361E+05
(3P)	6S4P0.5	0.21668E+16	0.76383E-01	0.27380E-02	0.8693383E+04
(3P)	6S4P1.5	0.22125E+16	0.15577E+00	0.55917E-02	0.8513535E+04
(3P)	6S4P2.5	0.23291E+16	0.23515E+00	0.88297E-02	0.8087340E+04
(JP)	4D4P0.5	0.21658E+16	0.93669E-01	0.33007E-02	0.8617715E+04
(3P)	4D4P1.5	0.23188E+16	0.18734E+00	0.70031E-02	0.8123477E+04
(3P)	4P4P2.5	0.24320E+16	0.28101E+00	0.11018E-01	0.7745332E+04
(JP)	5D4P0.5	0.26650E+16	0.83956E-01	0.36341E-02	0.7015574E+04
(3P)	5D4P1.5	0.27319E+16	0.16791E+00	0.73951E-02	0.6895125E+04
(3P)	5D4P2.5	0.27194E+16	0.25187E+00	0.11042E-01	0.6926645E+04

## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1D)		4P2P0.5	94309.000	2.369	113627.000	67.043	10.876

 INTERACTIONS -- DIPOLE --  
 DESIGNATION                      W

			RAA**2	F	W L VAC
(1D)	4S2D1.5	0.19262E+16	0.10876E+02	0.16834E+00	0.9809691E+04

## INTERACTIONS -- QUADRUPOLE --

0.29197E+14	0.35957E+02
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19 - SEQ. NUM.

PR EE DESIG (3P)	SP4D0.5	LEVEL 94727.000	N EFF 3.354	S. LIMIT 104991.000	RAA**2 288.196	S. RAA**2 327.117
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	W L VAC
(3P)	4S4P0.5	0.42896E+16	0.75466E-01	0.52188E-02
(3P)	4S4P1.5	0.41898E+16	0.15093E-01	0.50974E-03
(3P)	3U4D0.5	0.12167E+16	0.15979E+00	0.31341E-02
(3P)	3U4D1.5	0.12393E+16	0.15979E+00	0.15962E-02
(3P)	3D4F1.5	0.85480E+15	0.96570E+01	0.66544E-01
(3P)	5S4P0.5	0.67887E+15	0.32154E+02	0.30285E+00
(3P)	5S4P1.5	0.67020E+15	0.66309E+01	0.35822E-01
(3P)	5S4P0.5	0.66116E+15	0.35601E+02	0.38160E+00
(3P)	5S4P1.5	0.63423E+15	0.71602E+01	0.36605E-01
(3P)	3D4P0.5	0.57847E+15	0.20969E+00	0.19555E-02
(3P)	3D4P1.5	0.57451E+15	0.41938E-01	0.19421E-03
(3P)	4D4J0.5	0.18253E+15	0.11379E+02	0.33483E-01
(3P)	4D4D1.5	0.19873E+15	0.11479E+02	0.36455E-01
(3P)	4D4F1.5	0.33209E+15	0.15069E+03	0.80676E+00
(3P)	6S4P0.5	0.47204E+15	0.36633E+02	0.27878E+00
(3P)	6S4P1.5	0.51782E+15	0.73267E+01	0.61163E-01
(3P)	4D4P0.5	0.49107E+15	0.11518E+01	0.91186E-02
(3P)	4D4P1.5	0.62405E+15	0.23030E+00	0.23176E-02
(3P)	5D4J0.5	0.84180E+15	0.28625E+01	0.38847E-01
(3P)	5D4D1.5	0.85401E+15	0.28625E+01	0.39439E-01
(3P)	5D4F1.5	0.90152E+15	0.62629E+01	0.12009E+00
(3P)	5D4P0.5	0.99024E+15	0.11508E-02	0.18371E-04
(3P)	5U4P1.5	0.10371E+16	0.23015E-03	0.38482E-05
(3P)	6D4U0.5	0.11705E+16	0.63616E+00	0.12004E-01
(3P)	6D4D1.5	0.11893E+16	0.63618E+00	0.12198E-01

INTERACTIONS -- QUADRUPOLE -

0.19967E+16	0.57709E+05
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## 20 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		5P2P0.5	96308.000	3.593	104991.000	384.373	249.970

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	# L VAC	
(JP)	4S2P0.5	0.41604E+16	0.27425E+00	0.18394E-01	0.4527547E+04
(JP)	4S2P1.5	0.40399E+16	0.13713E+00	0.44655E-02	0.4662656E+04
(JP)	3D2U1.5	0.93599E+15	0.47765E+01	0.36037E-01	0.2012477E+05
(JP)	3D2P0.5	0.82444E+15	0.18885E+01	0.25208E-01	0.2269632E+05
(JP)	3D2P1.5	0.77569E+15	0.94429E+00	0.59043E-02	0.2428363E+05
(JP)	5S2P0.5	0.78605E+15	0.26363E+02	0.33408E+00	0.2396357E+05
(JP)	5S2P1.5	0.69883E+15	0.13182E+02	0.74256E-01	0.2695418E+05
(JP)	4D2U1.5	0.22999E+15	0.17587E+03	0.65208E+00	0.8190006E+05
(JP)	4D2P0.5	0.60691E+15	0.13077E+02	0.12795E+00	0.3103662E+05
(JP)	4D2P1.5	0.64025E+15	0.65389E+01	0.67494E-01	0.2942041E+05
(JP)	5D2U1.5	0.74159E+15	0.68307E+01	0.81665E-01	0.2540005E+05
(JP)	5D2P0.5	0.82730E+15	0.60623E-01	0.81122E-03	0.2276867E+05
(JP)	5D2P1.5	0.83352E+15	0.30413E-01	0.40867E-03	0.2259887E+05

INTERACTIONS -- QUADRUPOLE -			
	0.19581E+16	0.38291E+05	

## 21 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(JP)		5D4D0.5	99196.000	4.405	104991.000	775.770	285.924

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA**2	F	# L VAC	
(JP)	4P4P0.5	0.30670E+16	0.69400E+00	0.34314E-01	0.6141750E+04
(JP)	4P4P1.5	0.30270E+16	0.13880E+00	0.33867E-02	0.6222773E+04
(JP)	4P4D0.5	0.29833E+16	0.16712E+00	0.77683E-02	0.6532957E+04
(JP)	4P4D1.5	0.28365E+16	0.16713E+00	0.38239E-02	0.6636137E+04
(JP)	5P4P0.5	0.88890E+15	0.85666E+01	0.12276E+00	0.2119093E+05
(JP)	5P4P1.5	0.65461E+15	0.17133E+01	0.11803E-01	0.2204100E+05
(JP)	5P4D0.5	0.84180E+15	0.28625E+01	0.38847E-01	0.2237637E+05
(JP)	5P4D1.5	0.82391E+15	0.28625E+01	0.17011E-01	0.2286237E+05
(JP)	6P4P0.5	0.53084E+14	0.16747E+03	0.14494E+00	0.3508772E+06
(JP)	6P4P1.5	0.53684E+14	0.33494E+02	0.14494E-01	0.3508772E+06
(JP)	6P4D0.5	0.34094E+14	0.33895E+02	0.18030E-01	0.5524862E+06
(JP)	6P4D1.5	0.34094E+14	0.33895E+02	0.93153E-02	0.5524862E+06

INTERACTIONS -- QUADRUPOLE -			
	0.20946E+16	0.22985E+06	

PARENT INFORMATION NO. DESIG LIMIT  
1 (2P) 127109.875

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2P) 4S3P0.0	93143.81	93143.81	3143.80
2	(2P) 4S1P1.0	95399.87		
3	(2P) 4P3S1.0	104102.12		
4	(2P) 4P3D1.0	105462.81	105462.81	105462.81
5	(2P) 4P1D2.0	106237.62		
6	(2P) 4P1P1.0	107131.75		
7	(2P) 4P3P0.0	107289.75	107289.75	107289.75
8	(2P) 4P1S0.0	108722.69		
9	(2P) 5S3P0.0	113468.56	113468.56	113468.56
10	(2P) 5S1P1.0	114975.06		
11	(2P) 4D3F2.0	119023.69	119023.69	119023.69
12	(2P) 4D3P0.0	118906.69	118906.69	118906.69
13	(2P) 4D1P1.0	119847.81		
14	(2P) 4D1F3.0	119566.12		
15	(2P) 4D1D2.0	120619.06		
16	(2P) 4D3D1.0	120753.50	120753.50	120753.50
17	(2P) 6S3P0.0	119683.12	119683.12	119683.12
18	(2P) 6S1P1.0	121161.37		
19	(2P) 7S3P0.0	122440.12	122440.12	122440.12
20	(2P) 7S1P1.0	123882.31		
21	(2P) 8S3P0.0	123903.31	123903.31	123903.31
22	(2P) 8S1P1.0	125353.31		
23	(2P) 9S3P0.0	124771.62	124771.62	124771.62
24	(2P) 9S1P1.0	126211.56		
25	(2P) 10S3P0.0	125330.00	125330.00	125330.00
26	(2P) 11S3P0.0	125709.44	125709.44	125709.44
27	(2P) 12S3P0.0	125979.44	125979.44	125979.44
28	(2P) 13S3P0.0	126178.25	126178.25	126178.25
29	(2P) 14S3P0.0	126328.81	126328.81	126328.81

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4S3P0.0	93143.812	1.143	127109.875	4.917	1.354

INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 4P3S1.0	0.20642E+16	0.22888E+00	0.76164E-02	0.9125492E+04
(2P) 4P3D1.0	0.23205E+16	0.84517E+00	0.31617E-01	0.8117539E+04
(2P) 4P3P1.0	0.26646E+16	0.27973E+00	0.12016E-01	0.7069164E+04

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2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		451P1.0	95399.875	1.860	127109.875	31.640	28.520

INTERACTIONS -- DIPOLE -					
DESIGNATION		#	RAA**2	F	# L VAC
(2P)	4P102.0	0.20415E+16	0.16198E+02	0.53310E+00	0.9227004E+04
(2P)	4P1>1.0	0.22099E+16	0.94634E+01	0.33715E+00	0.8523785E+04
(2P)	4P150.0	0.25096E+16	0.28586E+01	0.11565E+00	0.7505922E+04

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OF POOR QUALITY



## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P3S1.0	104102.125	2.183	127109.875	44.862	6.209

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	# L VAC
(2P)	4S3P0.0	0.20642E+16	0.76292E-01	0.76164E-02	0.9125492E+04
(2P)	4S3P1.0	0.20642E+16	0.22887E+00	0.76162E-02	0.9125492E+04
(2P)	4S3P2.0	0.17017E+17	0.38146E+00	0.70169E-01	0.9905073E+03
(2P)	5S3P0.0	0.17643E+16	0.52299E+00	0.14864E-01	0.1067641E+05
(2P)	5S3P1.0	0.17643E+16	0.15677E+01	0.44391E-01	0.1067641E+05
(2P)	5S3P2.0	0.17643E+16	0.26129E+01	0.74320E-01	0.1067641E+05
(2P)	4D3P0.0	0.27887E+16	0.26609E-01	0.11962E-02	0.6754672E+04
(2P)	4D3P1.0	0.27887E+16	0.79821E-01	0.35885E-02	0.6754672E+04
(2P)	4D3P2.0	0.27887E+16	0.13304E+00	0.59810E-02	0.6754672E+04
(2P)	6S3P0.0	0.29349E+16	0.39382E-01	0.18634E-02	0.5418070E+04
(2P)	6S3P1.0	0.29349E+16	0.11814E+00	0.55700E-02	0.6418070E+04
(2P)	6S3P2.0	0.29349E+16	0.19691E+00	0.93168E-02	0.6418070E+04
(2P)	7S3P0.0	0.34542E+16	0.11810E-01	0.65765E-03	0.5453156E+04
(2P)	7S3P1.0	0.34542E+16	0.35423E-01	0.19729E-02	0.5453156E+04
(2P)	7S3P2.0	0.34542E+16	0.59048E-01	0.32882E-02	0.5453156E+04
(2P)	8S3P0.0	0.37299E+16	0.53399E-02	0.32109E-03	0.5050199E+04
(2P)	8S3P1.0	0.37299E+16	0.16019E-01	0.96325E-03	0.5050199E+04
(2P)	8S3P2.0	0.37299E+16	0.26699E-01	0.16054E-02	0.5050199E+04
(2P)	9S3P0.0	0.34934E+16	0.29358E-02	0.18427E-03	0.4838043E+04
(2P)	9S3P1.0	0.38934E+16	0.88071E-02	0.55280E-03	0.4838043E+04
(2P)	9S3P2.0	0.38934E+16	0.14679E-01	0.92135E-03	0.4838043E+04
(2P)	10S3P0.0	0.39986E+16	0.18117E-02	0.11679E-03	0.4710785E+04
(2P)	10S3P1.0	0.39986E+16	0.54351E-02	0.35036E-03	0.4710785E+04
(2P)	10S3P2.0	0.39986E+16	0.90587E-02	0.53395E-03	0.4710785E+04
(2P)	11S3P0.0	0.40701E+16	0.12049E-02	0.79062E-04	0.4628062E+04
(2P)	11S3P1.0	0.40701E+16	0.36147E-02	0.23718E-03	0.4628062E+04
(2P)	11S3P2.0	0.40701E+16	0.60247E-02	0.39531E-03	0.4628062E+04
(2P)	12S3P0.0	0.41209E+16	0.84639E-03	0.56230E-04	0.4570945E+04
(2P)	12S3P1.0	0.41209E+16	0.25391E-02	0.16869E-03	0.4570945E+04
(2P)	12S3P2.0	0.41209E+16	0.42319E-02	0.28115E-03	0.4570945E+04
(2P)	13S3P0.0	0.41584E+16	0.61939E-03	0.41524E-04	0.4529777E+04
(2P)	13S3P1.0	0.41584E+16	0.18581E-02	0.12457E-03	0.4529777E+04
(2P)	13S3P2.0	0.41584E+16	0.30970E-02	0.20762E-03	0.4529777E+04
(2P)	14S3P0.0	0.41867E+16	0.46766E-03	0.31565E-04	0.4499094E+04
(2P)	14S3P1.0	0.41867E+16	0.14030E-02	0.94694E-04	0.4499094E+04
(2P)	14S3P2.0	0.41867E+16	0.23383E-02	0.15783E-03	0.4499094E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)		4P3D1.0	105462.812	2.251	127109.875	51.451	8.872

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	# L VAC
(2P) 4S3P0.0	0.23205E+16	0.28172E+00	0.31617E-01	0.8117539E+04
(2P) 4S3P1.0	0.23205E+16	0.21129E+00	0.79043E-02	0.8117539E+04
(2P) 4S3P2.0	0.19273E+17	0.14086E-01	0.26201E-02	0.9773354E+03
(2P) 5S3P0.0	0.15030E+16	0.38385E+01	0.93319E-01	0.1249102E+05
(2P) 5S3P1.0	0.15080E+16	0.28789E+01	0.69989E-01	0.1249102E+05
(2P) 5S3P2.0	0.15080E+16	0.19193E+00	0.46660E-02	0.1249102E+05
(2P) 4D3F2.0	0.25544E+16	0.44442E+00	0.18301E-01	0.7374152E+04
(2P) 4D3P0.0	0.25324E+16	0.48136E-02	0.13652E-03	0.7438320E+04
(2P) 4D3P1.0	0.25324E+16	0.36101E-02	0.14738E-03	0.7438328E+04
(2P) 4D3P2.0	0.25324E+16	0.24058E-03	0.98258E-05	0.7438328E+04
(2P) 4D3D1.0	0.28802E+16	0.25412E+00	0.11800E-01	0.6539926E+04
(2P) 4D3D2.0	0.28802E+16	0.84707E-01	0.39332E-02	0.6539926E+04
(2P) 6S3P0.0	0.26786E+16	0.22901E+00	0.98892E-02	0.7032191E+04
(2P) 6S3P1.0	0.26786E+16	0.17175E+00	0.74169E-02	0.7032191E+04
(2P) 6S3P2.0	0.26786E+16	0.11450E-01	0.49446E-03	0.7032191E+04
(2P) 7S3P0.0	0.31979E+16	0.66272E-01	0.34167E-02	0.5890211E+04
(2P) 7S3P1.0	0.31979E+16	0.49703E-01	0.25625E-02	0.5890211E+04
(2P) 7S3P2.0	0.31979E+16	0.33136E-02	0.17083E-03	0.5890211E+04
(2P) 8S3P0.0	0.34735E+16	0.29688E-01	0.15625E-02	0.5422844E+04
(2P) 8S3P1.0	0.34735E+16	0.22266E-01	0.12469E-02	0.5422844E+04
(2P) 8S3P2.0	0.34735E+16	0.14844E-02	0.83126E-04	0.5422844E+04
(2P) 9S3P0.0	0.36371E+16	0.16261E-01	0.95345E-03	0.5178980E+04
(2P) 9S3P1.0	0.36371E+16	0.12195E-01	0.71508E-03	0.5178980E+04
(2P) 9S3P2.0	0.36371E+16	0.81304E-03	0.47573E-04	0.5178980E+04
(2P) 10S3P0.0	0.37423E+16	0.10041E-01	0.60575E-03	0.5033422E+04
(2P) 10S3P1.0	0.37423E+16	0.75303E-02	0.45431E-03	0.5033422E+04
(2P) 10S3P2.0	0.37423E+16	0.50203E-03	0.30288E-04	0.5033422E+04
(2P) 11S3P0.0	0.38138E+16	0.66713E-02	0.41018E-03	0.4939094E+04
(2P) 11S3P1.0	0.38138E+16	0.50035E-02	0.30763E-03	0.4939094E+04
(2P) 11S3P2.0	0.38138E+16	0.33357E-03	0.20509E-04	0.4939094E+04
(2P) 12S3P0.0	0.38646E+16	0.46895E-02	0.29217E-03	0.4874094E+04
(2P) 12S3P1.0	0.38646E+16	0.35171E-02	0.21913E-03	0.4874094E+04
(2P) 12S3P2.0	0.38646E+16	0.23444E-03	0.14609E-04	0.4874094E+04
(2P) 13S3P0.0	0.39021E+16	0.34362E-02	0.21616E-03	0.4827316E+04
(2P) 13S3P1.0	0.39021E+16	0.25771E-02	0.16212E-03	0.4827316E+04
(2P) 13S3P2.0	0.39021E+16	0.17181E-03	0.10808E-04	0.4827316E+04
(2P) 14S3P0.0	0.39304E+16	0.25950E-02	0.16443E-03	0.4792484E+04
(2P) 14S3P1.0	0.39304E+16	0.19462E-02	0.12332E-03	0.4792484E+04
(2P) 14S3P2.0	0.39304E+16	0.12975E-03	0.82216E-05	0.4792484E+04

## 5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		4P1D2.0	106237.625	2.292	127109.875	55.812	14.794

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 4S1P1.0	0.20415E+16	0.97190E+01	0.53310E+00	0.922700E+04
(2P) 5S1P1.0	0.16458E+16	0.45944E+01	0.12190E+00	0.1144500E+05
(2P) 4D1P1.0	0.25637E+16	0.19453E-02	0.80398E-04	0.734743E+04
(2P) 4D1F3.0	0.25106E+16	0.37956E-03	0.15363E-04	0.7502719E+04
(2P) 4D1D2.0	0.27090E+16	0.28468E+00	0.12433E-01	0.6953406E+04
(2P) 6S1P1.0	0.28111E+16	0.11364E+00	0.51503E-02	0.6700727E+04
(2P) 7S1P1.0	0.33236E+16	0.51181E-01	0.27424E-02	0.5667426E+04
(2P) 8S1P1.0	0.36007E+16	0.20651E-01	0.11987E-02	0.5231305E+04
(2P) 9S1P1.0	0.37624E+16	0.78582E-02	0.47664E-03	0.5005523E+04

## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		4P1P1.0	107131.750	2.343	127109.875	61.511	17.244

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 4S1P1.0	0.22099E+16	0.94634E+01	0.33715E+00	0.8523785E+04
(2P) 5S1P1.0	0.14774E+16	0.63001E+01	0.15006E+00	0.1274971E+05
(2P) 4D1P1.0	0.23953E+16	0.59775E-02	0.23082E-03	0.7864060E+04
(2P) 4D1D2.0	0.25405E+16	0.12074E+01	0.49452E-01	0.7414375E+04
(2P) 6S1P1.0	0.26427E+16	0.18969E+00	0.80816E-02	0.7127773E+04
(2P) 7S1P1.0	0.31552E+16	0.47595E-01	0.24210E-02	0.5969945E+04
(2P) 8S1P1.0	0.34323E+16	0.20965E-01	0.11600E-02	0.5488000E+04
(2P) 9S1P1.0	0.35940E+16	0.92465E-02	0.53574E-03	0.5241141E+04

## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2P)		8S3P0.0	123903.312	5.848	127109.875	2941.769	0.155

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA**2	F	W L VAC
(2P) 4P3S1.0	0.37299E+16	0.16020E-01	0.32109E-03	0.5050195E+04
(2P) 4P3D1.0	0.34735E+16	0.89065E-01	0.16625E-02	0.5422844E+04
(2P) 4P3P1.0	0.31294E+16	0.50776E-01	0.85390E-03	0.6019176E+04

8 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2P)	953P0.0	124771.625	0.849	127109.675	5523.430	0.085

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2P)	4P3S1.0	0.38934E+16	0.88074E-02	0.18427E-03	0.4838043E+04
(2P)	4P3D1.0	0.36371E+16	0.48782E-01	0.95345E-03	0.5178980E+04
(2P)	4P3P1.0	0.32930E+16	0.27676E-01	0.48975E-03	0.5720207E+04

ORIGINAL PAGE IS  
OF POOR QUALITY

POTASSIUM ---- 19 --- NEUTRAL

PARENT INFORMATION NO. DESIG LIMIT  
1 (1S) 35009.781

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 4S2S0.5	0.0	
2	(1S) 4P2P0.5	12985.17	13042.89
3	(1S) 5S2S0.5	21026.80	
4	(1S) 3D1D2.0	21536.75	
5	(1S) 5P2P0.5	24701.44	24720.20
6	(1S) 4D2D1.5	27398.11	27397.01
7	(1S) 6S2S0.5	27450.65	
8	(1S) 4F2F2.5	28127.70	28127.70
9	(1S) 6P2P0.5	28999.29	29007.70
10	(1S) 5D2D1.5	30185.69	30185.18
11	(1S) 7S2S0.5	30274.26	
12	(1S) 5F2F2.5	30605.60	30605.60
13	(1S) 7P2P0.5	31069.98	31074.46
14	(1S) 6D2D1.5	31695.75	31695.51
15	(1S) 8S2S0.5	31764.95	
16	(1S) 6F2F2.5	31953.00	31953.00
17	(1S) 8P2P0.5	32227.42	32230.12
18	(1S) 7D2D1.5	32598.46	32598.46
19	(1S) 9S2S0.5	32648.17	
20	(1S) 7F2F2.5	32764.52	32764.52
21	(1S) 9P2P0.5	32940.34	32942.08
22	(1S) 8D2D1.5	33178.36	33178.36
23	(1S) 10S2S0.5	33214.39	
24	(1S) 8F2F2.5	33291.04	33291.04
25	(1S) 10P2P0.5	33410.34	33411.54
26	(1S) 9D2D1.5	33572.11	33572.11
27	(1S) 11S2S0.5	33598.17	
28	(1S) 9F2F2.5	33652.00	33652.00
29	(1S) 11P2P0.5	33736.60	33737.44
30	(1S) 10D2D1.5	33851.76	33851.76
31	(1S) 12S2S0.5	33869.70	
32	(1S) 12P2P0.5	33972.34	33972.94
33	(1S) 11D2D1.5	34056.90	34056.90
34	(1S) 13S2S0.5	34069.30	
35	(1S) 13P2P0.5	34148.15	34148.63
36	(1S) 14P2P0.5	34282.77	34283.15
37	(1S) 15P2P0.5	34388.16	34388.46

Table 17. Potassium

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		4S250.5	0.0	1.770	35009.761	26.107	24.409

INTERACTIONS -- DIPOLE --  
DESIGNATION W

RAA\*\*2

F

W L VAC

(15)	4P2P 0.5	0.24460E+16	0.30727E+01	0.31833E+00	0.7701090E+04
(15)	4P2P 1.5	0.24568E+16	0.16145E+02	0.63948E+00	0.7667012E+04
(15)	5P2P 0.5	0.46525E+16	0.53575E-01	0.40488E-02	0.4048347E+04
(15)	5P2P 1.5	0.46564E+16	0.10795E+00	0.81036E-02	0.4045275E+04
(15)	6P2P 0.5	0.54625E+16	0.65763E-02	0.57912E-03	0.3448360E+04
(15)	6P2P 1.5	0.54640E+16	0.13152E-01	0.11586E-02	0.3447361E+04
(15)	7P2P 0.5	0.58525E+16	0.17177E-02	0.16206E-03	0.3218541E+04
(15)	7P2P 1.5	0.58533E+16	0.34353E-02	0.32417E-03	0.3218077E+04
(15)	8P2P 0.5	0.60705E+16	0.63752E-03	0.62391E-04	0.3102948E+04
(15)	8P2P 1.5	0.60710E+16	0.12750E-02	0.12479E-03	0.3102687E+04
(15)	9P2P 0.5	0.62048E+16	0.29610E-03	0.29619E-04	0.3035791E+04
(15)	9P2P 1.5	0.62051E+16	0.59219E-03	0.59240E-04	0.3035031E+04
(15)	10P2P 0.5	0.62933E+16	0.15595E-03	0.15823E-04	0.2993085E+04
(15)	10P2P 1.5	0.62936E+16	0.31191E-03	0.31646E-04	0.2992978E+04
(15)	11P2P 0.5	0.63548E+16	0.90547E-04	0.92764E-05	0.2964140E+04
(15)	11P2P 1.5	0.63550E+16	0.18109E-03	0.18553E-04	0.2964066E+04
(15)	12P2P 0.5	0.63992E+16	0.56919E-04	0.58721E-05	0.2943571E+04
(15)	12P2P 1.5	0.63993E+16	0.11384E-03	0.11744E-04	0.2943519E+04
(15)	13P2P 0.5	0.64323E+16	0.38057E-04	0.39464E-05	0.2928416E+04
(15)	13P2P 1.5	0.64324E+16	0.76113E-04	0.78929E-05	0.2928375E+04
(15)	14P2P 0.5	0.64577E+16	0.26385E-04	0.27468E-05	0.2916917E+04
(15)	14P2P 1.5	0.64577E+16	0.52769E-04	0.54937E-05	0.2916885E+04
(15)	15P2P 0.5	0.64775E+16	0.19484E-04	0.20346E-05	0.2907978E+04
(15)	15P2P 1.5	0.64776E+16	0.38967E-04	0.40693E-05	0.2907952E+04

2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(1S)		4P2P0.5	12985.172	2.234	35009.781	49.690	30.687

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	4S250.5	0.24460E+16	0.80727E+01	0.31833E+00	0.7701090E+04
(1S)	5S250.5	0.15148E+16	0.70391E+01	0.17190E+00	0.1243529E+05
(1S)	3D102.0	0.10108E+16	0.14743E+02	0.38287E+00	0.1169375E+05
(1S)	4D201.5	0.27149E+16	0.44589E-01	0.19516E-02	0.6938207E+04
(1S)	6S250.5	0.27248E+16	0.39090E+00	0.17171E-01	0.6913008E+04
(1S)	5D201.5	0.32400E+16	0.19801E-01	0.10343E-02	0.5813777E+04
(1S)	7S250.5	0.32567E+16	0.11148E+00	0.58528E-02	0.5783992E+04
(1S)	6D201.5	0.35244E+16	0.41831E-01	0.23768E-02	0.5344566E+04
(1S)	8S250.5	0.35375E+16	0.49501E-01	0.28230E-02	0.5324875E+04
(1S)	7D201.5	0.30945E+16	0.33999E-01	0.20250E-02	0.5098582E+04
(1S)	9S250.5	0.37038E+16	0.27014E-01	0.16130E-02	0.5085691E+04
(1S)	8D201.5	0.38037E+16	0.25642E-01	0.15947E-02	0.4952164E+04
(1S)	10S250.5	0.38105E+16	0.16615E-01	0.10207E-02	0.4943344E+04
(1S)	9D201.5	0.38779E+16	0.19701E-01	0.12317E-02	0.4657445E+04
(1S)	11S250.5	0.38828E+16	0.10985E-01	0.68763E-03	0.4851305E+04
(1S)	10D201.5	0.39305E+16	0.15008E-01	0.95103E-03	0.4792348E+04
(1S)	12S250.5	0.39339E+16	0.75744E-02	0.48037E-03	0.4728230E+04
(1S)	11D201.5	0.39692E+16	0.11907E-01	0.76194E-03	0.4745695E+04
(1S)	13S250.5	0.39715E+16	0.53888E-02	0.34503E-03	0.4742902E+04

INTERACTIONS -- QUADRUPOLE -

0.40316E+16 0.12391E+04

3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)	4P	2P1.5	13042.861	2.234	35009.781	49.690	36.960

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	4S2S0.5	0.24568E+16	0.80727E+01	0.63948E+00	0.7667012E+04
(1S)	5S2S0.5	0.15039E+16	0.70591E+01	0.17066E+00	0.1252519E+05
(1S)	3D102.0	0.15999E+16	0.21016E+02	0.54208E+00	0.1177321E+05
(1S)	4D201.5	0.27046E+16	0.44589E+02	0.19438E-03	0.6966105E+04
(1S)	4D202.5	0.27038E+16	0.40130E-01	0.17493E-02	0.6966637E+04
(1S)	6S2S0.5	0.27139E+16	0.39090E+00	0.17103E-01	0.6940703E+04
(1S)	5D201.5	0.32291E+16	0.19801E-02	0.10308E-03	0.5833352E+04
(1S)	5D202.5	0.32290E+16	0.17621E-01	0.92770E-03	0.5833523E+04
(1S)	7S2S0.5	0.32458E+16	0.11148E+00	0.58332E-02	0.5803367E+04
(1S)	6D201.5	0.35135E+16	0.41831E-02	0.23695E-03	0.5361105E+04
(1S)	6D202.5	0.35135E+16	0.37648E-01	0.21325E-02	0.5361176E+04
(1S)	8S2S0.5	0.35266E+16	0.49501E-01	0.28143E-02	0.5341293E+04
(1S)	7D201.5	0.36836E+16	0.33999E-02	0.20190E-03	0.5113629E+04
(1S)	7D202.5	0.36836E+16	0.30599E-01	0.18171E-02	0.5113629E+04
(1S)	9S2S0.5	0.36930E+16	0.27014E-01	0.16083E-02	0.5100664E+04
(1S)	8D201.5	0.37928E+16	0.25842E-02	0.15801E-03	0.4966359E+04
(1S)	8D202.5	0.37928E+16	0.23258E-01	0.14221E-02	0.4966359E+04
(1S)	10S2S0.5	0.37996E+16	0.16615E-01	0.10177E-02	0.4957488E+04
(1S)	9D201.5	0.38670E+16	0.19702E-02	0.12282E-03	0.4871105E+04
(1S)	9D202.5	0.38670E+16	0.17731E-01	0.11054E-02	0.4871105E+04
(1S)	11S2S0.5	0.38719E+16	0.10985E-01	0.68571E-03	0.4864930E+04
(1S)	10D201.5	0.39197E+16	0.15006E-02	0.94840E-04	0.4805641E+04
(1S)	10D202.5	0.39197E+16	0.13508E-01	0.85356E-03	0.4805641E+04
(1S)	12S2S0.5	0.39230E+16	0.75743E-02	0.47904E-03	0.4801500E+04
(1S)	11D201.5	0.39583E+16	0.11907E-02	0.75980E-04	0.4758730E+04
(1S)	11D202.5	0.39583E+16	0.10717E-01	0.68387E-03	0.4758730E+04
(1S)	13S2S0.5	0.39606E+16	0.53888E-02	0.34408E-03	0.4755922E+04

INTERACTIONS -- QUADRUPOLE -

0.40208E+16	0.89029E+02
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		SS250.5	21026.801	2.801	35009.781	157.739	153.802

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(15) 4P2P0.5	0.15148E+16	0.70391E+01	0.17190E+00	0.1243529E+05
(15) 4P2P1.5	0.15039E+16	0.14078E+02	0.17066E+00	0.1252519E+05
(15) 5P2P0.5	0.69217E+15	0.43732E+02	0.48800E+00	0.2721354E+05
(15) 5P2P1.5	0.69571E+15	0.87463E+02	0.98097E+00	0.2707533E+05
(15) 6P2P0.5	0.15017E+16	0.40640E+00	0.98390E-02	0.1254313E+05
(15) 6P2P1.5	0.15033E+16	0.81280E+00	0.19699E-01	0.1252991E+05
(15) 7P2P0.5	0.18918E+16	0.57347E-01	0.17490E-02	0.9957004E+04
(15) 7P2P1.5	0.18926E+16	0.11469E+00	0.34995E-02	0.9952562E+04
(15) 8P2P0.5	0.21098E+16	0.16899E-01	0.57477E-03	0.8928074E+04
(15) 8P2P1.5	0.21103E+16	0.33797E-01	0.11498E-02	0.8925922E+04
(15) 9P2P0.5	0.22441E+16	0.70789E-02	0.25610E-03	0.8393809E+04
(15) 9P2P1.5	0.22444E+16	0.14158E-01	0.51228E-03	0.8392586E+04
(15) 10P2P0.5	0.23326E+16	0.35871E-02	0.13489E-03	0.8075234E+04
(15) 10P2P1.5	0.23329E+16	0.71741E-02	0.26981E-03	0.8074453E+04
(15) 11P2P0.5	0.23941E+16	0.20626E-02	0.79609E-04	0.7867941E+04
(15) 11P2P1.5	0.23942E+16	0.41252E-02	0.15923E-03	0.7867422E+04
(15) 12P2P0.5	0.24385E+16	0.12992E-02	0.51075E-04	0.7724668E+04
(15) 12P2P1.5	0.24386E+16	0.25984E-02	0.10215E-03	0.7724309E+04
(15) 13P2P0.5	0.24716E+16	0.87490E-03	0.34861E-04	0.7621168E+04
(15) 13P2P1.5	0.24717E+16	0.17498E-02	0.69725E-04	0.7620887E+04
(15) 14P2P0.5	0.24970E+16	0.61594E-03	0.24795E-04	0.7543770E+04
(15) 14P2P1.5	0.24970E+16	0.12319E-02	0.49591E-04	0.7543555E+04
(15) 15P2P0.5	0.25168E+16	0.45650E-03	0.18522E-04	0.7484266E+04
(15) 15P2P1.5	0.25169E+16	0.91300E-03	0.37045E-04	0.7484098E+04

## 5 - SEQ. NUM.

PR EE DESIG (1S) SP2P0.5	LEVEL 24701.441	N EFF 3.264	S. LIMIT 35009.781	RAA**2 257.027	S. RAA***2 246.804
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INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(1S) 4S2S0.5	0.46529E+16	0.53975E-01	0.40488E-02	0.4048347E+04	
(1S) 5S2S0.5	0.69217E+15	0.43732E+02	0.49800E+00	0.2721354E+05	
(1S) 30102.0	0.59612E+15	0.10869E+02	0.41761E-01	0.3159866E+05	
(1S) 40201.5	0.50796E+15	0.15103E+03	0.12368E+01	0.3708280E+05	
(1S) 6S2S0.5	0.51785E+15	0.38117E+02	0.31823E+00	0.3637412E+05	
(1S) 50201.5	0.10330E+16	0.49149E+00	0.81852E-02	0.1823403E+05	
(1S) 7S2S0.5	0.10497E+16	0.16146E+01	0.27325E-01	0.1794423E+05	
(1S) 60201.5	0.13175E+16	0.23537E-03	0.49992E-05	0.1429734E+05	
(1S) 8S2S0.5	0.13305E+16	0.41811E+00	0.89664E-02	0.1415727E+05	
(1S) 70201.5	0.14875E+16	0.16888E-01	0.40500E-03	0.1266300E+05	
(1S) 9S2S0.5	0.14969E+16	0.17775E+00	0.42894E-02	0.1258379E+05	
(1S) 80201.5	0.15968E+16	0.21305E-01	0.54843E-03	0.1179674E+05	
(1S) 10S2S0.5	0.16035E+16	0.95016E-01	0.24563E-02	0.1174681E+05	
(1S) 90201.5	0.16709E+16	0.19650E-01	0.52934E-03	0.1127311E+05	
(1S) 11S2S0.5	0.16758E+16	0.57387E-01	0.15504E-02	0.1124008E+05	
(1S) 100201.5	0.17236E+16	0.16174E-01	0.44942E-03	0.1092858E+05	
(1S) 12S2S0.5	0.17270E+16	0.36982E-01	0.10296E-02	0.1090720E+05	
(1S) 110201.5	0.17622E+16	0.13658E-01	0.38802E-03	0.1068895E+05	
(1S) 13S2S0.5	0.17646E+16	0.24921E-01	0.70895E-03	0.1067480E+05	

## INTERACTIONS -- QUADRUPOLE -

0.21961E+16	0.75219E+05
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		SP2P1.5	24720.199	3.264	35009.781	257.027	251.428

INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	W L VAC
(1S)	4S2S0.5	0.46564E+16	0.53975E-01	0.81036E-02	0.4045275E+04
(1S)	5S2S0.5	0.69571E+15	0.43732E+02	0.98097E+00	0.2707533E+05
(1S)	30102.0	0.59965E+15	0.15493E+02	0.11982E+00	0.3141247E+05
(1S)	40201.5	0.50442E+15	0.15103E+02	0.12282E+00	0.3734255E+05
(1S)	40202.5	0.50422E+15	0.13593E+03	0.11049E+01	0.3735786E+05
(1S)	6S2S0.5	0.51432E+15	0.38117E+02	0.31605E+00	0.3662401E+05
(1S)	50201.5	0.10295E+16	0.49149E-01	0.81573E-03	0.1829601E+05
(1S)	50202.5	0.10294E+16	0.44234E+00	0.73408E-02	0.1829832E+05
(1S)	7S2S0.5	0.10462E+16	0.16146E+01	0.27233E-01	0.1800484E+05
(1S)	60201.5	0.13140E+16	0.23537E-04	0.49858E-06	0.1433579E+05
(1S)	60202.5	0.13139E+16	0.21183E-03	0.44870E-05	0.1433627E+05
(1S)	8S2S0.5	0.13270E+16	0.41811E+00	0.89445E-02	0.1419496E+05
(1S)	70201.5	0.14840E+16	0.16888E-02	0.40404E-04	0.1269315E+05
(1S)	70202.5	0.14840E+16	0.15200E-01	0.36364E-03	0.1269315E+05
(1S)	9S2S0.5	0.14934E+16	0.17775E+00	0.42793E-02	0.1261356E+05
(1S)	80201.5	0.15932E+16	0.21305E-02	0.54722E-04	0.1182290E+05
(1S)	80202.5	0.15932E+16	0.19174E-01	0.49249E-03	0.1182290E+05
(1S)	10S2S0.5	0.16000E+16	0.95016E-01	0.24509E-02	0.1177275E+05
(1S)	90201.5	0.16674E+16	0.19650E-02	0.52822E-04	0.1129700E+05
(1S)	90202.5	0.16674E+16	0.17685E-01	0.47539E-03	0.1129700E+05
(1S)	11S2S0.5	0.16723E+16	0.57387E-01	0.15472E-02	0.1126383E+05
(1S)	100201.5	0.17201E+16	0.16174E-02	0.44850E-04	0.1095103E+05
(1S)	100202.5	0.17201E+16	0.14556E-01	0.40365E-03	0.1095103E+05
(1S)	12S2S0.5	0.17234E+16	0.36982E-01	0.10275E-02	0.1092956E+05
(1S)	110201.5	0.17587E+16	0.13658E-02	0.38724E-04	0.1071042E+05
(1S)	110202.5	0.17587E+16	0.12292E-01	0.34852E-03	0.1071042E+05
(1S)	13S2S0.5	0.17610E+16	0.24921E-01	0.70753E-03	0.1069621E+05

INTERACTIONS -- QUADRUPOLE --

0.21996E+16	0.11185E+05
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7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(15)		65250.5	27450.648	3.809	35009.781	533.576	528.444

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(15)	4P2P0.5	0.27248E+16	0.39090E+00	0.17171E-01	0.6913008E+04
(15)	4P2P1.5	0.27139E+16	0.78181E+00	0.17103E-01	0.6940703E+04
(15)	5P2P0.5	0.51785E+15	0.38117E+02	0.31823E+00	0.3637412E+05
(15)	5P2P1.5	0.51432E+15	0.76235E+02	0.31605E+00	0.3662401E+05
(15)	6P2P0.5	0.29171E+15	0.13581E+03	0.63867E+00	0.6457276E+05
(15)	6P2P1.5	0.29329E+15	0.27161E+03	0.12843E+01	0.6422398E+05
(15)	7P2P0.5	0.68176E+15	0.14731E+01	0.16191E-01	0.2762941E+05
(15)	7P2P1.5	0.68260E+15	0.29462E+01	0.32421E-01	0.2759525E+05
(15)	8P2P0.5	0.89978E+15	0.22267E+00	0.32299E-02	0.2093463E+05
(15)	8P2P1.5	0.90029E+15	0.44533E+00	0.64635E-02	0.2092281E+05
(15)	9P2P0.5	0.10341E+16	0.69440E-01	0.11576E-02	0.1821596E+05
(15)	9P2P1.5	0.10344E+16	0.13868E+00	0.23159E-02	0.1821019E+05
(15)	10P2P0.5	0.11226E+16	0.30095E-01	0.54465E-03	0.1677939E+05
(15)	10P2P1.5	0.11228E+16	0.60190E-01	0.10895E-02	0.1677602E+05
(15)	11P2P0.5	0.11841E+16	0.15770E-01	0.30103E-03	0.1590848E+05
(15)	11P2P1.5	0.11842E+16	0.31541E-01	0.60215E-03	0.1590636E+05
(15)	12P2P0.5	0.12285E+16	0.93546E-02	0.18526E-03	0.1533345E+05
(15)	12P2P1.5	0.12286E+16	0.16709E-01	0.37056E-03	0.1533203E+05
(15)	13P2P0.5	0.12616E+16	0.60455E-02	0.12296E-03	0.1493094E+05
(15)	13P2P1.5	0.12617E+16	0.12091E-01	0.24593E-03	0.1492987E+05
(15)	14P2P0.5	0.12869E+16	0.41400E-02	0.85894E-04	0.1463674E+05
(15)	14P2P1.5	0.12870E+16	0.82800E-02	0.17180E-03	0.1463593E+05
(15)	15P2P0.5	0.13068E+16	0.29971E-02	0.63142E-04	0.1441439E+05
(15)	15P2P1.5	0.13068E+16	0.59943E-02	0.12629E-03	0.1441376E+05

ORIGINAL PAGE IS  
OF POOR QUALITY

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		6220.5	26999.289	4.274	35009.781	788.315	790.836

INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	W L VAC
(15)	4S2S0.5	0.54625E+16	0.65763E-02	0.57912E-03	0.3448360E+04
(15)	5S2S0.5	0.15017E+16	0.40640E+00	0.98390E-02	0.1254313E+05
(15)	30102.0	0.14057E+16	0.20431E+00	0.18520E-02	0.1340026E+05
(15)	40201.5	0.30161E+15	0.10576E+03	0.25712E+00	0.6245395E+05
(15)	6S2S0.5	0.29171E+15	0.13581E+03	0.63867E+00	0.6457276E+05
(15)	50201.5	0.22348E+15	0.42811E+03	0.15424E+01	0.8428844E+05
(15)	7S2S0.5	0.24016E+15	0.11823E+03	0.45775E+00	0.7843300E+05
(15)	60201.5	0.50792E+15	0.19463E+01	0.15937E-01	0.3708564E+05
(15)	8S2S0.5	0.52095E+15	0.43510E+01	0.36542E-01	0.3615773E+05
(15)	70201.5	0.67796E+15	0.48410E-01	0.52911E-03	0.2778417E+05
(15)	9S2S0.5	0.68732E+15	0.10616E+01	0.11763E-01	0.2740565E+05
(15)	80201.5	0.78719E+15	0.37684E-03	0.47823E-05	0.2392877E+05
(15)	10S2S0.5	0.79398E+15	0.43760E+00	0.56013E-02	0.2372422E+05
(15)	90201.5	0.86136E+15	0.76467E-02	0.10618E-03	0.2186834E+05
(15)	11S2S0.5	0.86627E+15	0.22768E+00	0.31797E-02	0.2174441E+05
(15)	100201.5	0.91404E+15	0.10674E-01	0.15729E-03	0.2060805E+05
(15)	12S2S0.5	0.91742E+15	0.13301E+00	0.19672E-02	0.2053215E+05
(15)	110201.5	0.95268E+15	0.11795E-01	0.18116E-03	0.1977218E+05
(15)	13S2S0.5	0.95501E+15	0.83527E-01	0.12860E-02	0.1972382E+05

INTERACTIONS -- QUADRUPOLE --

0.30056E+16	0.67351E+06
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9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		7S250.5	30274.262	4.813	35009.781	1352.665	1346.299

INTERACTIONS -- DIPULE -  
DESIGNATION

		M	RAA**2	F	M L VAC
(1S)	4P2P0.5	0.32567E+16	0.11148E+00	0.58528E-02	0.5783992E+04
(1S)	4P2P1.5	0.32458E+16	0.22295E+00	0.58332E-02	0.5603367E+04
(1S)	5P2P0.5	0.10497E+16	0.16146E+01	0.27325E-01	0.1794423E+05
(1S)	5P2P1.5	0.10462E+16	0.32293E+01	0.27233E-01	0.1800484E+05
(1S)	6P2P0.5	0.24016E+15	0.11823E+03	0.45775E+00	0.7843300E+05
(1S)	6P2P1.5	0.23858E+15	0.23646E+03	0.45473E+00	0.7695381E+05
(1S)	7P2P0.5	0.14989E+15	0.32406E+03	0.78305E+00	0.1256725E+06
(1S)	7P2P1.5	0.15073E+15	0.64812E+03	0.15749E+01	0.1249689E+06
(1S)	8P2P0.5	0.36791E+15	0.37872E+01	0.22462E-01	0.5119908E+05
(1S)	8P2P1.5	0.36842E+15	0.75743E+01	0.44987E-01	0.5112842E+05
(1S)	9P2P0.5	0.50220E+15	0.59357E+00	0.48056E-02	0.3750828E+05
(1S)	9P2P1.5	0.50252E+15	0.11871E+01	0.96175E-02	0.3746384E+05
(1S)	10P2P0.5	0.59073E+15	0.18816E+00	0.17919E-02	0.3188696E+05
(1S)	10P2P1.5	0.59095E+15	0.37631E+00	0.35851E-02	0.3187477E+05
(1S)	11P2P0.5	0.65218E+15	0.82813E-01	0.87071E-03	0.2888220E+05
(1S)	11P2P1.5	0.65234E+15	0.16563E+00	0.17418E-02	0.2887520E+05
(1S)	12P2P0.5	0.69659E+15	0.44037E-01	0.49454E-03	0.2704107E+05
(1S)	12P2P1.5	0.69670E+15	0.88074E-01	0.98923E-03	0.2703667E+05
(1S)	13P2P0.5	0.72971E+15	0.26436E-01	0.31100E-03	0.2581387E+05
(1S)	13P2P1.5	0.72980E+15	0.52873E-01	0.62207E-03	0.2581066E+05
(1S)	14P2P0.5	0.75506E+15	0.17193E-01	0.20928E-03	0.2494694E+05
(1S)	14P2P1.5	0.75513E+15	0.34386E-01	0.41861E-03	0.2494458E+05
(1S)	15P2P0.5	0.77491E+15	0.11964E-01	0.14946E-03	0.2430784E+05
(1S)	15P2P1.5	0.77497E+15	0.23928E-01	0.29895E-03	0.2430607E+05

10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		7P2P0.5	31069.980	5.278	35009.781	1870.729	1883.427

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(1S) 4S2S0.5	0.58525E+16	0.17177E-02	0.16206E-03	0.3218541E+04
(1S) 5S2S0.5	0.18918E+16	0.57347E-01	0.17490E-02	0.9957004E+04
(1S) 3D1D2.0	0.17957E+16	0.44021E-01	0.50975E-03	0.1048962E+05
(1S) 4D2D1.5	0.69165E+15	0.29554E+01	0.16477E-01	0.2723407E+05
(1S) 6S2S0.5	0.68176E+15	0.14731E+01	0.16191E-01	0.2762941E+05
(1S) 5D2D1.5	0.16657E+15	0.28620E+03	0.38426E+00	0.1130852E+06
(1S) 7S2S0.5	0.14989E+15	0.32406E+03	0.78305E+00	0.1256725E+06
(1S) 6D2D1.5	0.11787E+15	0.95777E+03	0.18340E+01	0.1598032E+06
(1S) 8S2S0.5	0.13091E+15	0.28200E+03	0.59513E+00	0.1438913E+06
(1S) 7D2D1.5	0.28791E+15	0.52764E+01	0.24491E-01	0.6542445E+05
(1S) 9S2S0.5	0.29728E+15	0.94855E+01	0.45460E-01	0.6336367E+05
(1S) 8D2D1.5	0.39714E+15	0.28623E+00	0.18454E-02	0.4742980E+05
(1S) 10S2S0.5	0.40393E+15	0.22196E+01	0.14454E-01	0.4663287E+05
(1S) 9D2D1.5	0.47131E+15	0.18874E-01	0.14341E-03	0.3996596E+05
(1S) 11S2S0.5	0.47622E+15	0.88387E+00	0.67858E-02	0.3955396E+05
(1S) 10D2D1.5	0.52399E+15	0.11281E-03	0.95297E-06	0.3594819E+05
(1S) 12S2S0.5	0.52737E+15	0.44194E+00	0.37573E-02	0.3571787E+05
(1S) 11D2D1.5	0.56263E+15	0.21209E-02	0.19238E-04	0.3347932E+05
(1S) 13S2S0.5	0.56497E+15	0.25056E+00	0.22821E-02	0.3334089E+05

INTERACTIONS -- QUADRUPOLE -

0.33957E+16	0.37020E+07
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11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(1S)		7P2P1.5	31074.461	5.278	35009.781	1870.729	1883.444

INTERACTIONS -- DIPOLE -  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(1S) 4S2S0.5	0.58533E+16	0.17177E-02	0.32417E-03	0.3218077E+04
(1S) 5S2S0.5	0.18926E+16	0.57347E-01	0.34995E-02	0.9952562E+04
(1S) 3D1D2.0	0.17966E+16	0.62749E-01	0.14539E-02	0.1048470E+05
(1S) 4D2D1.5	0.69250E+15	0.29554E+00	0.32994E-02	0.2720088E+05
(1S) 4D2D2.5	0.63270E+15	0.26599E+01	0.19803E-01	0.2719276E+05
(1S) 6S2S0.5	0.68260E+15	0.14731E+01	0.32421E-01	0.2759525E+05
(1S) 5D2D1.5	0.16741E+15	0.28620E+02	0.77245E-01	0.1125151E+06
(1S) 5D2D2.5	0.16751E+15	0.25758E+03	0.46373E+00	0.1124503E+06
(1S) 7S2S0.5	0.15073E+15	0.32406E+03	0.15749E+01	0.1249669E+06
(1S) 6D2D1.5	0.11703E+15	0.96777E+02	0.18259E+00	0.1609556E+06
(1S) 6D2D2.5	0.11698E+15	0.87099E+03	0.16426E+01	0.1610174E+06
(1S) 8S2S0.5	0.13006E+15	0.28200E+03	0.59130E+00	0.1448250E+06
(1S) 7D2D1.5	0.28707E+15	0.52764E+00	0.24419E-02	0.6561675E+05
(1S) 7D2D2.5	0.28707E+15	0.47488E+01	0.21977E-01	0.6561675E+05
(1S) 9S2S0.5	0.29643E+15	0.94855E+01	0.45330E-01	0.6354407E+05
(1S) 8D2D1.5	0.39630E+15	0.28823E-01	0.18415E-03	0.4753081E+05
(1S) 8D2D2.5	0.39630E+15	0.25941E+00	0.16574E-02	0.4753081E+05
(1S) 10S2S0.5	0.40309E+15	0.22196E+01	0.14424E-01	0.4673050E+05
(1S) 9D2D1.5	0.47047E+15	0.16674E-02	0.14316E-04	0.4003766E+05
(1S) 9D2D2.5	0.47047E+15	0.16987E-01	0.12884E-03	0.4003766E+05
(1S) 11S2S0.5	0.47538E+15	0.88387E+00	0.67738E-02	0.3962419E+05
(1S) 10D2D1.5	0.52315E+15	0.11281E-04	0.95143E-07	0.3600618E+05
(1S) 10D2D2.5	0.52315E+15	0.10153E-03	0.85629E-06	0.3600618E+05
(1S) 12S2S0.5	0.52653E+15	0.44194E+00	0.37513E-02	0.3577512E+05
(1S) 11D2D1.5	0.56179E+15	0.21209E-03	0.19209E-05	0.3352962E+05
(1S) 11D2D2.5	0.56179E+15	0.19086E-02	0.17288E-04	0.3352962E+05
(1S) 13S2S0.5	0.56412E+15	0.25056E+00	0.22787E-02	0.3339077E+05

INTERACTIONS -- QUADRUPOLE -

0.33965E+16 0.45117E+06

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OF POOR QUALITY



12 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA***2
(15)		8P2P0.5	32227.422	6.281	35009.781	3791.067	3804.324

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	# L VAC
(15)	45250.5	0.60705E+16	0.63752E-03	0.62391E-04	0.3102948E+04
(15)	55250.5	0.21098E+16	0.16899E-01	0.57477E-03	0.8926074E+04
(15)	30102.0	0.20137E+16	0.16997E-01	0.22072E-03	0.9353945E+04
(15)	40201.5	0.90967E+15	0.68072E+00	0.49915E-02	0.2070688E+05
(15)	65250.5	0.89978E+15	0.22267E+00	0.32299E-02	0.2093463E+05
(15)	50201.5	0.36459E+15	0.90023E+01	0.27408E-01	0.4897806E+05
(15)	75250.5	0.36791E+15	0.37872E+01	0.22462E-01	0.5119908E+05
(15)	60201.5	0.10015E+15	0.63198E+03	0.51018E+00	0.1880859E+06
(15)	85250.5	0.87114E+14	0.65836E+03	0.92459E+00	0.2162290E+06
(15)	70201.5	0.69891E+14	0.16912E+04	0.21309E+01	0.2695134E+06
(15)	95250.5	0.79255E+14	0.57205E+03	0.73090E+00	0.2376708E+06
(15)	80201.5	0.17912E+15	0.11505E+02	0.33222E-01	0.1051594E+06
(15)	105250.5	0.18591E+15	0.18118E+02	0.54301E-01	0.1013203E+06
(15)	90201.5	0.25329E+15	0.85252E+00	0.34812E-02	0.7436669E+05
(15)	115250.5	0.25820E+15	0.40678E+01	0.16933E-01	0.7295275E+05
(15)	100201.5	0.30597E+15	0.11980E+00	0.59095E-03	0.6156347E+05
(15)	125250.5	0.30935E+15	0.15484E+01	0.77219E-02	0.6089105E+05
(15)	110201.5	0.34461E+15	0.16175E-01	0.89864E-04	0.5466044E+05
(15)	135250.5	0.34695E+15	0.74826E+00	0.41852E-02	0.5429238E+05

INTERACTIONS -- QUADRUPOLE --

0.36137E+16 0.14991E+08

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		9P2P0.5	32940.340	7.282	35009.781	6897.516	6910.016

## INTERACTIONS -- DIPOLE --

DESIGNATION	M	RAA**2	F	M L VAC
(15)	4S2S0.5	0.62048E+16	0.29610E-03	0.29619E-04
(15)	5S2S0.5	0.22441E+16	0.70789E-02	0.25610E-03
(15)	3D1D2.0	0.21480E+16	0.85580E-02	0.11854E-03
(15)	4D2D1.5	0.10440E+16	0.27193E+00	0.22883E-02
(15)	6S2S0.5	0.10341E+16	0.69440E-01	0.11576E-02
(15)	5D2D1.5	0.51888E+15	0.20838E+01	0.87156E-02
(15)	7S2S0.5	0.50220E+15	0.59357E+00	0.48056E-02
(15)	6D2D1.5	0.23444E+15	0.20723E+02	0.39161E-01
(15)	8S2S0.5	0.22140E+15	0.80732E+01	0.28816E-01
(15)	7D2D1.5	0.64398E+14	0.12265E+04	0.63667E+00
(15)	9S2S0.5	0.55034E+14	0.12000E+04	0.10647E+01
(15)	8D2D1.5	0.44835E+14	0.33470E+04	0.24192E+01
(15)	10S2S0.5	0.51622E+14	0.10404E+04	0.86586E+00
(15)	9D2D1.5	0.11900E+15	0.21615E+02	0.41468E-01
(15)	11S2S0.5	0.12391E+15	0.31298E+02	0.62523E-01
(15)	10D2D1.5	0.17168E+15	0.19372E+01	0.53617E-02
(15)	12S2S0.5	0.17506E+15	0.66802E+01	0.18853E-01
(15)	11D2D1.5	0.21032E+15	0.32599E+00	0.11053E-02
(15)	13S2S0.5	0.21266E+15	0.24457E+01	0.83848E-02

## INTERACTIONS -- QUADRUPOLE --

0.37480E+16	0.49197E+08
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CALCIUM ----- 20 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	49304.801
	2	(2D)	63685.000

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2S) 4P3P0.0	15157.00	15210.00	15315.00
2	(2S) 3D3D1.0	20335.00	20349.00	20370.00
3	(2S) 3D1D2.0	21849.00		
4	(2S) 4P1P1.0	23652.00		
5	(2S) 5S3S1.0	31539.00		
6	(2S) 5S1S0.0	33317.00		
7	(2D) 4P3F2.0	35730.00	35818.00	35896.00
8	(2D) 4P1D2.0	35835.00		
9	(2S) 5P3P0.0	36547.00	36554.00	36575.00
10	(2D) 4P1P1.0	36731.00		
11	(2S) 4D1D2.0	37298.00		
12	(2S) 4D3D1.0	37748.00	37751.00	37757.00
13	(2D) 4P3D1.0	38192.00	38219.00	38259.00
14	(2D) 4P3P0.0	39333.00	39335.00	39340.00
15	(2S) 6S3S1.0	40474.00		
16	(2D) 4P1F3.0	40537.00		
17	(2S) 5P1P1.0	41678.00		
18	(2S) 6S1S0.0	41786.00		
19	(2S) 4F3F2.0	42170.00	42170.00	42171.00
20	(2S) 4F1F3.0	42343.00		
21	(2S) 6P3P0.0	42514.00	42513.00	42526.00
22	(2S) 5D3D1.0	42743.00	42744.00	42747.00
23	(2S) 5D1D2.0	42919.00		
24	(2S) 6P1P1.0	43933.00		
25	(2S) 7S3S1.0	43980.00		
26	(2S) 7S1S0.0	44276.00		
27	(2S) 5F3F2.0	44762.00	44762.00	44763.00
28	(2S) 5F1F3.0	44804.00		
29	(2S) 7P3P0.0	44961.00	44957.00	44961.00
30	(2S) 6D1D2.0	44989.00		
31	(2S) 6D3D1.0	45049.00	45050.00	45052.00
32	(2S) 7P1P1.0	45425.00		
33	(2S) 6S3S1.0	45738.00		
34	(2S) 8S1S0.0	45887.00		
35	(2S) 6F3F2.0	46104.00	46164.00	46164.00
36	(2S) 6F1F3.0	46182.00		
37	(2S) 7D3D1.0	46302.00	46303.00	46306.00
38	(2S) 7D1D2.0	46309.00		
39	(2S) 8P1P1.0	46479.00		
40	(2S) 9S3S1.0	46746.00		
41	(2S) 9S1S0.0	46835.00		
42	(2S) 7F3F2.0	47006.00	47006.00	47006.00
43	(2S) 7F1F3.0	47015.00		
44	(2S) 8D3D1.0	47036.00	47040.00	47045.00

Table 18. Calcium

# TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
45	(2S) 9P1P1.0	47184.00		
46	(2S)10S3S1.0	47382.00		
47	(2S)10S1S0.0	47436.00		
48	(2D) 5S301.0	47450.00	47465.00	47475.00
49	(2S) 8F3F2.0	47550.00	47550.00	47550.00
50	(2S) 8F1F3.0	47554.00		
51	(2S)10P1P1.0	47660.00		
52	(2S) 9D3D1.0	47753.00	47757.00	47765.00
53	(2S)11S3S1.0	47805.00		
54	(2S)11S1S0.0	47843.00		
55	(2S) 9F3F2.0	47922.00	47922.00	47922.00
56	(2S) 9F1F3.0	47924.00		
57	(2S)11P1P1.0	47998.00		
58	(2S)10D3D1.0	48032.00	48033.00	48036.00
59	(2S)12S3S1.0	48103.00		
60	(2S)12S1S0.0	48128.00		
61	(2S)10F3F2.0	48186.00	48186.00	48186.00
62	(2S)10F1F3.0	48188.00		
63	(2S)12P1P1.0	48222.00		
64	(2S)11D3D1.0	48259.00	48259.00	48259.00
65	(2S)13S3S1.0	48320.00		
66	(2S)11F3F2.0	48382.00	48382.00	48382.00
67	(2S)11F1F3.0	48385.00		
68	(2S)13P1P1.0	48416.00		
69	(2S)12D3D1.0	48434.00	48434.00	48434.00
70	(2S)14S3S1.0	48464.00		
71	(2S)12F3F2.0	48531.00	48531.00	48531.00
72	(2S)13D3D1.0	48570.00	48570.00	48570.00
73	(2S)13F3F2.0	48647.00	48647.00	48647.00
74	(2S)14D3D1.0	48676.00	48676.00	48676.00
75	(2S)15D3D1.0	48762.00	48762.00	48762.00
76	(2S)16D3D1.0	48830.00	48830.00	48830.00

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OF POOR QUALITY

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4P3P0.0	15157.000	1.795	49304.801	17.831	8.602

INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	# L VAC
(25)	55351.0	0.30858E+16	0.15325E+01	0.76239E-01	0.6104258E+04
(25)	40301.0	0.42554E+16	0.45983E+01	0.31546E+00	0.4426539E+04
(25)	65351.0	0.47688E+16	0.11808E+00	0.90778E-02	0.3949915E+04
(25)	50301.0	0.51962E+16	0.11928E+01	0.99919E-01	0.3625027E+04
(25)	75351.0	0.54292E+16	0.34779E-01	0.30441E-02	0.3467451E+04
(25)	60301.0	0.56306E+16	0.51445E+00	0.46699E-01	0.3345376E+04
(25)	85351.0	0.57004E+16	0.15385E-01	0.14287E-02	0.3270004E+04
(25)	70301.0	0.58566E+16	0.27068E+00	0.25601E-01	0.3210788E+04
(25)	95351.0	0.59506E+16	0.82886E-02	0.79515E-03	0.3165458E+04
(25)	80301.0	0.60049E+16	0.14236E+00	0.13792E-01	0.3136861E+04
(25)	105351.0	0.60701E+16	0.50232E-02	0.49156E-03	0.3103181E+04
(25)	90301.0	0.61399E+16	0.14035E-01	0.13892E-02	0.3067861E+04
(25)	115351.0	0.61497E+16	0.33255E-02	0.32969E-03	0.3062975E+04
(25)	100301.0	0.61925E+16	0.32860E-01	0.32805E-02	0.3041825E+04
(25)	125351.0	0.62059E+16	0.23079E-02	0.23090E-03	0.3035270E+04
(25)	110301.0	0.62353E+16	0.30745E-01	0.30905E-02	0.3020965E+04
(25)	135351.0	0.62466E+16	0.16768E-02	0.16887E-03	0.3015409E+04
(25)	120301.0	0.62682E+16	0.24858E-01	0.25120E-02	0.3005078E+04
(25)	145351.0	0.62776E+16	0.12343E-02	0.12492E-03	0.3000570E+04
(25)	130301.0	0.62938E+16	0.19585E-01	0.19872E-02	0.2992847E+04
(25)	140301.0	0.63138E+16	0.15969E-01	0.16255E-02	0.2983382E+04
(25)	150301.0	0.63300E+16	0.12525E-01	0.12782E-02	0.2975748E+04
(25)	160301.0	0.63428E+16	0.10707E-01	0.10949E-02	0.2969738E+04

INTERACTIONS -- QUADRUPOLE --

0.56140E+16	0.40164E+03
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		4P3P1.0	15210.000	1.795	49304.801	17.831	8.602

# INTERACTIONS -- DIPOLE --

DESIGNATION	M	RAA**2	F	M L VAC
(2S) 55351.0	0.30758E+16	0.15325E+01	0.75991E-01	0.6124070E+04
(2S) 40301.0	0.42454E+16	0.11496E+01	0.78678E-01	0.4436949E+04
(2S) 40302.0	0.42459E+16	0.34467E+01	0.23606E+00	0.4436359E+04
(2S) 65351.0	0.47589E+16	0.11807E+00	0.90586E-02	0.3958201E+04
(2S) 50301.0	0.51863E+16	0.29819E+00	0.24932E-01	0.3632005E+04
(2S) 50302.0	0.51864E+16	0.89456E+00	0.74797E-01	0.3631873E+04
(2S) 75351.0	0.54193E+16	0.34778E-01	0.30384E-02	0.3475843E+04
(2S) 60301.0	0.56200E+16	0.12861E+00	0.11654E-01	0.3351319E+04
(2S) 60302.0	0.56208E+16	0.38583E+00	0.34963E-01	0.3351206E+04
(2S) 85351.0	0.57504E+16	0.15385E-01	0.14262E-02	0.3275681E+04
(2S) 70301.0	0.58566E+16	0.67669E-01	0.63892E-02	0.3216261E+04
(2S) 70302.0	0.58568E+16	0.20301E+00	0.19168E-01	0.3216158E+04
(2S) 95351.0	0.59407E+16	0.82884E-02	0.79379E-03	0.3170778E+04
(2S) 80301.0	0.59949E+16	0.35590E-01	0.34396E-02	0.3142085E+04
(2S) 80302.0	0.59957E+16	0.10677E+00	0.10320E-01	0.3141690E+04
(2S) 105351.0	0.60601E+16	0.50231E-02	0.49074E-03	0.3108293E+04
(2S) 90301.0	0.61300E+16	0.35086E-02	0.34673E-03	0.3072857E+04
(2S) 90302.0	0.61307E+16	0.10526E-01	0.10403E-02	0.3072480E+04
(2S) 115351.0	0.61398E+16	0.33254E-02	0.32915E-03	0.3067955E+04
(2S) 100301.0	0.61325E+16	0.82150E-02	0.81880E-03	0.3046737E+04
(2S) 100302.0	0.61827E+16	0.24645E-01	0.24565E-02	0.3046644E+04
(2S) 125351.0	0.61959E+16	0.23076E-02	0.23052E-03	0.3040160E+04
(2S) 110301.0	0.62253E+16	0.76662E-02	0.77139E-03	0.3025810E+04
(2S) 110302.0	0.62253E+16	0.23058E-01	0.23141E-02	0.3025810E+04
(2S) 135351.0	0.62368E+16	0.16768E-02	0.16859E-03	0.3020235E+04
(2S) 120301.0	0.62582E+16	0.62145E-02	0.62699E-03	0.3009872E+04
(2S) 120302.0	0.62582E+16	0.18643E-01	0.18810E-02	0.3009872E+04
(2S) 145351.0	0.62677E+16	0.12343E-02	0.12471E-03	0.3005349E+04
(2S) 130301.0	0.62839E+16	0.48962E-02	0.49601E-03	0.2997602E+04
(2S) 130302.0	0.62839E+16	0.14689E-01	0.14860E-02	0.2997602E+04
(2S) 140301.0	0.63038E+16	0.39923E-02	0.40572E-03	0.2988107E+04
(2S) 140302.0	0.63038E+16	0.11977E-01	0.12172E-02	0.2988107E+04
(2S) 150301.0	0.63200E+16	0.31312E-02	0.31904E-03	0.2980448E+04
(2S) 150302.0	0.63200E+16	0.93937E-02	0.95710E-03	0.2980448E+04
(2S) 160301.0	0.63328E+16	0.26768E-02	0.27329E-03	0.2974420E+04
(2S) 160302.0	0.63328E+16	0.80304E-02	0.81986E-03	0.2974420E+04

# INTERACTIONS -- QUADRUPOLE --

0.56040E+16	0.78554E+02
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## 3 - SEQ. NUM.

PR (2S)	EE 4P3P2.0	DESIG 15315.000	LEVEL 1.795	N EFF 49304.801	S. LIMIT 17.831	RAA**2 8.602	S. RAA***2
INTERACTIONS -- DIPOLE --							
DESIGNATION	W	RAA***2	F	W L VAC			
(2S) 553S1.0	0.30560E+16	0.15325E+01	0.75503E-01	0.6163707E+04			
(2S) 403D1.0	0.42250E+16	0.45983E-01	0.31325E-02	0.4457715E+04			
(2S) 403D2.0	0.42262E+16	0.68974E+00	0.46993E-01	0.4457121E+04			
(2S) 403D3.0	0.42273E+16	0.38620E+01	0.26324E+00	0.4455930E+04			
(2S) 653S1.0	0.47391E+16	0.11808E+00	0.90211E-02	0.3974721E+04			
(2S) 503D1.0	0.51665E+16	0.11928E-01	0.99347E-03	0.3645909E+04			
(2S) 503D2.0	0.51667E+16	0.17891E+00	0.14902E-01	0.3645776E+04			
(2S) 503D3.0	0.51672E+16	0.10019E+01	0.83463E-01	0.3645377E+04			
(2S) 753S1.0	0.53995E+16	0.34778E-01	0.30274E-02	0.3486575E+04			
(2S) 603D1.0	0.56008E+16	0.51446E-02	0.46452E-03	0.3363153E+04			
(2S) 603D2.0	0.56010E+16	0.77168E-01	0.69680E-02	0.3363040E+04			
(2S) 603D3.0	0.56014E+16	0.43214E+00	0.39024E-01	0.3362814E+04			
(2S) 853S1.0	0.57306E+16	0.15385E-01	0.14213E-02	0.3286987E+04			
(2S) 703D1.0	0.58369E+16	0.27068E-02	0.25471E-03	0.3227160E+04			
(2S) 703D2.0	0.58371E+16	0.40602E-01	0.38207E-02	0.3227055E+04			
(2S) 703D3.0	0.58376E+16	0.22737E+00	0.21398E-01	0.3226743E+04			
(2S) 953S1.0	0.59209E+16	0.82685E-02	0.79116E-03	0.3181370E+04			
(2S) 803D1.0	0.59751E+16	0.14236E-02	0.13713E-03	0.3152486E+04			
(2S) 803D2.0	0.59759E+16	0.21354E-01	0.20572E-02	0.3152088E+04			
(2S) 803D3.0	0.59768E+16	0.11958E+00	0.11522E-01	0.3151592E+04			
(2S) 1053S1.0	0.60403E+16	0.50232E-02	0.46915E-03	0.3110470E+04			
(2S) 903D1.0	0.61102E+16	0.14035E-03	0.13825E-04	0.3082604E+04			
(2S) 903D2.0	0.61109E+16	0.21052E-02	0.20740E-03	0.3082424E+04			
(2S) 903D3.0	0.61124E+16	0.11789E-01	0.11617E-02	0.3081604E+04			
(2S) 1153S1.0	0.61200E+16	0.33254E-02	0.32810E-03	0.3077670E+04			
(2S) 1003D1.0	0.61627E+16	0.32861E-03	0.32648E-04	0.3056515E+04			
(2S) 1003D2.0	0.61629E+16	0.49290E-02	0.48972E-03	0.3056421E+04			
(2S) 1003D3.0	0.61635E+16	0.27603E-01	0.27427E-02	0.3056141E+04			
(2S) 1253S1.0	0.61761E+16	0.23679E-02	0.22979E-03	0.3049896E+04			
(2S) 1103D1.0	0.62055E+16	0.30745E-03	0.30758E-04	0.3035454E+04			
(2S) 1103D2.0	0.62055E+16	0.46117E-02	0.46136E-03	0.3035454E+04			
(2S) 1103D3.0	0.62055E+16	0.25826E-01	0.25836E-02	0.3035454E+04			
(2S) 1353S1.0	0.62170E+16	0.16700E-02	0.16306E-03	0.3029044E+04			
(2S) 1203D1.0	0.62385E+16	0.24858E-03	0.25001E-04	0.3019415E+04			
(2S) 1203D2.0	0.62386E+16	0.37287E-02	0.37501E-03	0.3019415E+04			
(2S) 1203D3.0	0.62385E+16	0.20881E-01	0.21000E-02	0.3019415E+04			
(2S) 1453S1.0	0.62479E+16	0.12343E-02	0.12432E-03	0.3014863E+04			
(2S) 1303D1.0	0.62641E+16	0.19585E-03	0.19778E-04	0.3007066E+04			
(2S) 1303D2.0	0.62641E+16	0.29377E-02	0.29667E-03	0.3007066E+04			
(2S) 1303D3.0	0.62641E+16	0.16451E-01	0.16614E-02	0.3007066E+04			
(2S) 1403D1.0	0.62840E+16	0.15969E-03	0.16176E-04	0.2997512E+04			
(2S) 1403D2.0	0.62840E+16	0.23954E-02	0.24267E-03	0.2997512E+04			
(2S) 1403D3.0	0.62840E+16	0.13414E-01	0.13590E-02	0.2997512E+04			
(2S) 1503D1.0	0.63002E+16	0.12525E-03	0.12722E-04	0.2989305E+04			
(2S) 1503D2.0	0.63002E+16	0.18787E-02	0.19082E-03	0.2989305E+04			
(2S) 1503D3.0	0.63002E+16	0.10521E-01	0.10686E-02	0.2989305E+04			
(2S) 1603D1.0	0.63131E+16	0.10707E-03	0.10898E-04	0.2983739E+04			
(2S) 1603D2.0	0.63131E+16	0.16061E-02	0.16346E-03	0.2983739E+04			
(2S) 1603D3.0	0.63131E+16	0.89942E-02	0.91539E-03	0.2983739E+04			

## INTERACTIONS -- QUADRUPOLE --

0.55843E+16 0.11716E+03

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4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3D3D2.0	20349.000	1.946	49304.801	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3D3D3.0	20370.000	1.946	49304.801	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC

6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		3D1D2.0	21849.000	1.999	49304.801	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W RAA\*\*2 F W L VAC



## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		4P1P1.0	23652.000	2.068	49304.801	35.007	26.504

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2S) 5S150.0	0.16205E+16	0.51259E+01	0.15044E+00	0.1034661E+05
(2S) 40102.0	0.25704E+16	0.17989E+02	0.74546E+00	0.7328152E+04
(2S) 6S150.0	0.34158E+16	0.23910E+00	0.13167E-01	0.5514500E+04
(2S) 50102.0	0.36292E+16	0.20390E+01	0.11930E+00	0.5190219E+04
(2S) 7S150.0	0.38648E+16	0.77476E-01	0.48522E-02	0.4348719E+04
(2S) 60102.0	0.40191E+16	0.65383E+00	0.42364E-01	0.4686691E+04
(2S) 8S150.0	0.41883E+16	0.33549E-01	0.22653E-02	0.4497410E+04
(2S) 70102.0	0.42678E+16	0.30500E+00	0.20985E-01	0.4413645E+04
(2S) 9S150.0	0.43669E+16	0.17959E-01	0.12643E-02	0.4313504E+04
(2S) 10S150.0	0.44801E+16	0.10796E-01	0.77973E-03	0.4204504E+04
(2S) 11S150.0	0.45567E+16	0.70914E-02	0.52094E-03	0.4133766E+04
(2S) 12S150.0	0.46104E+16	0.48238E-02	0.35854E-03	0.4085635E+04

## INTERACTIONS -- QUADRUPOLE --

0.46647E+16	0.39946E+02
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## 8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		5S3S1.0	31539.000	2.485	49304.801	98.310	92.941

## INTERACTIONS -- DIPOLE --

DESIGNATION	W	RAA**2	F	W L VAC
(2S) 4P3P0.0	0.30858E+16	0.51084E+00	0.76239E-01	0.6104256E+04
(2S) 4P3P1.0	0.30758E+16	0.15325E+01	0.75991E-01	0.6124070E+04
(2S) 4P3P2.0	0.30560E+16	0.25542E+01	0.75503E-01	0.6163707E+04
(2S) 5P3P0.0	0.94333E+15	0.90010E+01	0.14001E+00	0.1996805E+05
(2S) 5P3P1.0	0.94465E+15	0.26802E+02	0.43863E+00	0.1994018E+05
(2S) 5P3P2.0	0.94861E+15	0.48005E+02	0.73413E+00	0.1985703E+05
(2S) 6P3P0.0	0.20673E+16	0.16018E+00	0.60050E-02	0.9111617E+04
(2S) 6P3P1.0	0.20681E+16	0.54052E+00	0.18021E-01	0.9108297E+04
(2S) 6P3P2.0	0.20696E+16	0.90089E+00	0.30058E-01	0.9101604E+04
(2S) 7P3P0.0	0.25282E+16	0.34912E-01	0.14230E-02	0.7450453E+04
(2S) 7P3P1.0	0.25275E+16	0.10473E+00	0.42675E-02	0.7452672E+04
(2S) 7P3P2.0	0.25282E+16	0.17466E+00	0.71148E-02	0.7450453E+04

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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		5P3P1.0	36554.000	2.934	49304.801	163.764	154.628

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(25)	5S3S1.0	0.94465E+15	0.23802E+02	0.43863E+00	0.1994016E+05
(25)	4D3D1.0	0.22491E+15	0.20101E+02	0.72884E-01	0.8375206E+05
(25)	4U3U2.0	0.22547E+15	0.60303E+02	0.21920E+00	0.8354219E+05
(25)	6S3S1.0	0.73839E+15	0.21007E+02	0.25006E+00	0.2551020E+05
(25)	5D3D1.0	0.11658E+16	0.39670E+01	0.73430E-01	0.1615770E+05
(25)	5U3U2.0	0.11660E+16	0.11721E+02	0.22032E+00	0.1615509E+05
(25)	7S3S1.0	0.13988E+16	0.11181E+01	0.25214E-01	0.1346620E+05
(25)	6D3D1.0	0.16002E+16	0.96369E+00	0.24860E-01	0.1177163E+05
(25)	6U3U2.0	0.16004E+16	0.28911E+01	0.74569E-01	0.1177024E+05
(25)	6S3S1.0	0.17299E+16	0.30527E+00	0.85139E-02	0.1088650E+05
(25)	7U3U1.0	0.18362E+16	0.42559E+00	0.12598E-01	0.1025851E+05
(25)	7D3D2.0	0.18364E+16	0.12768E+01	0.37798E-01	0.1025746E+05
(25)	9S3S1.0	0.19202E+16	0.13232E+00	0.40960E-02	0.9809691E+04
(25)	8D3D1.0	0.19744E+16	0.21894E+00	0.69690E-02	0.9540164E+04
(25)	8U3U2.0	0.19752E+16	0.65681E+00	0.20915E-01	0.9536523E+04
(25)	10S3S1.0	0.20396E+16	0.71210E-01	0.23415E-02	0.9235312E+04
(25)	9D3D1.0	0.21095E+16	0.91852E-02	0.31237E-03	0.8929367E+04
(25)	9U3U2.0	0.21103E+16	0.27555E-01	0.93745E-03	0.8926180E+04
(25)	11S3S1.0	0.21193E+16	0.43208E-01	0.14762E-02	0.8866098E+04
(25)	10D3D1.0	0.21621E+16	0.32137E-01	0.11202E-02	0.8712316E+04
(25)	10U3U2.0	0.21622E+16	0.96411E-01	0.33607E-02	0.8711559E+04
(25)	12S3S1.0	0.21754E+16	0.28576E-01	0.10022E-02	0.8658758E+04
(25)	11D3D1.0	0.22048E+16	0.31093E-01	0.11052E-02	0.8543355E+04
(25)	11U3U2.0	0.22046E+16	0.93279E-01	0.33156E-02	0.8543355E+04
(25)	13S3S1.0	0.22163E+16	0.19979E-01	0.71384E-03	0.8499062E+04
(25)	12D3D1.0	0.22376E+16	0.24987E-01	0.90143E-03	0.8417508E+04
(25)	12U3U2.0	0.22378E+16	0.74960E-01	0.27043E-02	0.8417508E+04
(25)	14S3S1.0	0.22472E+16	0.14728E-01	0.53356E-03	0.8362227E+04
(25)	13D3D1.0	0.22634E+16	0.19424E-01	0.70875E-03	0.8322234E+04
(25)	13U3U2.0	0.22634E+16	0.58271E-01	0.21262E-02	0.8322234E+04
(25)	14D3D1.0	0.22834E+16	0.15739E-01	0.57936E-03	0.8249461E+04
(25)	14U3U2.0	0.22834E+16	0.47216E-01	0.17381E-02	0.8249461E+04
(25)	15D3D1.0	0.22996E+16	0.12135E-01	0.44988E-03	0.8191348E+04
(25)	15U3U2.0	0.22996E+16	0.36405E-01	0.13496E-02	0.8191348E+04
(25)	16D3D1.0	0.23124E+16	0.10398E-01	0.38761E-03	0.8145973E+04
(25)	16U3U2.0	0.23124E+16	0.31193E-01	0.11628E-02	0.8145973E+04

## INTERACTIONS -- QUADRUPOLE -

0.40205E+16	0.54769E+04
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10 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		403D1.0	37748.000	3.081	49304.801	144.431	147.967

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(2S)	4P3P0.0	0.42554E+16	0.15328E+01	0.31546E+00	0.4426539E+04
(2S)	4P3P1.0	0.42454E+16	0.11496E+01	0.78678E-01	0.4436949E+04
(2S)	4P3P2.0	0.42250E+16	0.76639E-01	0.31325E-02	0.4457715E+04
(2S)	5P3P0.0	0.22623E+15	0.26802E+02	0.29325E+00	0.8326394E+05
(2S)	5P3P1.0	0.22491E+15	0.20101E+02	0.72884E-01	0.8375206E+05
(2S)	5P3P2.0	0.22095E+15	0.13401E+01	0.28641E-02	0.8525144E+05
(2S)	4F3F2.0	0.83295E+15	0.89715E+02	0.12047E+01	0.2261420E+05
(2S)	6P3P0.0	0.89775E+15	0.90593E+00	0.13111E-01	0.2098195E+05
(2S)	6P3P1.0	0.89350E+15	0.67944E+00	0.98418E-02	0.2096436E+05
(2S)	6P3P2.0	0.90001E+15	0.45297E-01	0.65723E-03	0.2092926E+05
(2S)	5F3F2.0	0.13212E+16	0.40880E+01	0.87073E-01	0.1425720E+05
(2S)	7P3P0.0	0.13587E+16	0.11235E+00	0.24608E-02	0.1386386E+05
(2S)	7P3P1.0	0.13579E+16	0.84258E-01	0.18446E-02	0.1387155E+05
(2S)	7P3P2.0	0.13587E+16	0.56173E-02	0.12304E-03	0.1386386E+05
(2S)	6F3F2.0	0.15853E+16	0.80585E+00	0.20595E-01	0.1168213E+05
(2S)	7F3F2.0	0.17439E+16	0.25684E+00	0.72208E-02	0.1080147E+05
(2S)	8F3F2.0	0.18464E+16	0.11453E+00	0.34092E-02	0.1020200E+05
(2S)	9F3F2.0	0.19164E+16	0.61790E-01	0.19090E-02	0.9828973E+04
(2S)	10F3F2.0	0.19662E+16	0.34268E-01	0.10862E-02	0.9580379E+04
(2S)	11F3F2.0	0.20031E+16	0.22561E-01	0.72855E-03	0.9403797E+04
(2S)	12F3F2.0	0.20311E+16	0.16524E-01	0.54109E-03	0.9273855E+04
(2S)	13F3F2.0	0.20530E+16	0.15937E-01	0.52747E-03	0.9175152E+04

INTERACTIONS -- QUADRUPOLE -

0.20875E+16	0.28508E+05
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11 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		653S1.0	40474.000	3.524	49304.801	391.867	360.810

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(2S)	4P3P0.0	0.47688E+16	0.39359E-01	0.90778E-02	0.3949915E+04
(2S)	4P3P1.0	0.47589E+16	0.11807E+00	0.90586E-02	0.3956201E+04
(2S)	4P3P2.0	0.47391E+16	0.19679E+00	0.90211E-02	0.3974721E+04
(2S)	5P3P0.0	0.73971E+15	0.70024E+01	0.25051E+00	0.2546473E+05
(2S)	5P3P1.0	0.73839E+15	0.21007E+02	0.25006E+00	0.2551020E+05
(2S)	5P3P2.0	0.73444E+15	0.35012E+02	0.24873E+00	0.2564760E+05
(2S)	6P3P0.0	0.38426E+15	0.32535E+02	0.20155E+00	0.4901961E+05
(2S)	6P3P1.0	0.38502E+15	0.97604E+02	0.60583E+00	0.4692368E+05
(2S)	6P3P2.0	0.38653E+15	0.16268E+03	0.10137E+01	0.4873294E+05
(2S)	7P3P0.0	0.84519E+15	0.51338E+00	0.69952E-02	0.2228661E+05
(2S)	7P3P1.0	0.84444E+15	0.15401E+01	0.20966E-01	0.2230649E+05
(2S)	7P3P2.0	0.84519E+15	0.25669E+01	0.34976E-01	0.2228661E+05

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	4F3F2.0	42170.000	3.921	49304.801	323.626	137.611
INTERACTIONS -- DIPOLE -						
DESIGNATION		#	RAA**2	F	# L VAC	
(25)	403D1.0	0.83295E+15	0.53829E+02	0.12047E+01	0.2261420E+05	
(25)	403D2.0	0.83239E+15	0.99683E+01	0.13377E+00	0.2262955E+05	
(25)	403D3.0	0.83126E+15	0.28481E+00	0.27263E-02	0.2260032E+05	
(25)	503D1.0	0.10773E+15	0.61716E+02	0.10739E+00	0.1745201E+06	
(25)	503D2.0	0.10812E+15	0.11429E+02	0.19921E-01	0.1742160E+06	
(25)	503D3.0	0.10869E+15	0.32654E+00	0.57216E-03	0.1733102E+06	
(25)	603D1.0	0.54230E+15	0.73263E-02	0.64052E-04	0.3473428E+05	
(25)	603D2.0	0.54249E+15	0.13567E-02	0.11865E-04	0.3472222E+05	
(25)	603D3.0	0.54267E+15	0.38764E-04	0.33925E-06	0.3469812E+05	
(25)	703D1.0	0.77632E+15	0.41509E-02	0.52085E-04	0.2420135E+05	
(25)	703D2.0	0.77851E+15	0.76869E-03	0.96476E-05	0.2419550E+05	
(25)	703D3.0	0.77708E+15	0.21963E-04	0.27585E-06	0.2417795E+05	
(25)	803D1.0	0.91658E+15	0.11179E-01	0.16518E-03	0.2055076E+05	
(25)	803D2.0	0.91734E+15	0.20701E-02	0.30614E-04	0.2053368E+05	
(25)	803D3.0	0.91828E+15	0.59146E-04	0.87580E-06	0.2051282E+05	
(25)	903D1.0	0.10516E+16	0.18363E-01	0.31132E-03	0.1791152E+05	
(25)	903D2.0	0.10524E+16	0.34005E-02	0.57693E-04	0.1789809E+05	
(25)	903D3.0	0.10539E+16	0.97158E-04	0.16508E-05	0.1787310E+05	
(25)	1003D1.0	0.11042E+16	0.43116E-02	0.76752E-04	0.1705902E+05	
(25)	1003D2.0	0.11044E+16	0.79844E-03	0.14216E-04	0.1705611E+05	
(25)	1003D3.0	0.11049E+16	0.22813E-04	0.40638E-06	0.1704739E+05	
(25)	1103D1.0	0.11470E+16	0.13434E-02	0.24847E-04	0.1642305E+05	
(25)	1103D2.0	0.11470E+16	0.24684E-03	0.46012E-05	0.1642305E+05	
(25)	1103D3.0	0.11470E+16	0.71099E-05	0.13147E-06	0.1642305E+05	
(25)	1203D1.0	0.11799E+16	0.61341E-03	0.11008E-04	0.1596424E+05	
(25)	1203D2.0	0.11799E+16	0.11359E-03	0.21608E-05	0.1596424E+05	
(25)	1203D3.0	0.11799E+16	0.32456E-05	0.61737E-07	0.1596424E+05	
(25)	1303D1.0	0.12055E+16	0.36551E-03	0.71036E-05	0.1562500E+05	
(25)	1303D2.0	0.12055E+16	0.67686E-04	0.13155E-05	0.1562500E+05	
(25)	1303D3.0	0.12055E+16	0.19339E-05	0.37586E-07	0.1562500E+05	
(25)	1403D1.0	0.12255E+16	0.20383E-03	0.40270E-05	0.1537043E+05	
(25)	1403D2.0	0.12255E+16	0.37746E-04	0.74574E-06	0.1537043E+05	
(25)	1403D3.0	0.12255E+16	0.10785E-05	0.21307E-07	0.1537043E+05	
(25)	1503D1.0	0.12417E+16	0.17743E-03	0.35517E-05	0.1516990E+05	
(25)	1503D2.0	0.12417E+16	0.32856E-04	0.65772E-06	0.1516990E+05	
(25)	1503D3.0	0.12417E+16	0.93877E-06	0.18792E-07	0.1516990E+05	
(25)	1603D1.0	0.12545E+16	0.91194E-04	0.18444E-05	0.1501501E+05	
(25)	1603D2.0	0.12545E+16	0.16888E-04	0.34155E-06	0.1501501E+05	
(25)	1603D3.0	0.12545E+16	0.48251E-06	0.97586E-08	0.1501501E+05	

## INTERACTIONS -- QUADRUPOLE -

0.12200E+16      0.66443E+04

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		5D1D2.0	42919.000	4.144	49304.801	591.331	670.405

INTERACTIONS -- DIPOLE -					
DESIGNATION	#	RAA**2	F	W L VAC	
(25)	4P1P1.0	0.36292E+16	0.12234E+01	0.11930E+00	0.5190219E+04
(25)	5P1P1.0	0.23376E+15	0.17355E+03	0.10901E+01	0.8058012E+05
(25)	4F1F3.0	0.10850E+15	0.11267E+03	0.14076E+00	0.1735111E+06
(25)	6P1P1.0	0.19100E+15	0.12674E+03	0.39642E+00	0.9861931E+05
(25)	5F1F3.0	0.35507E+15	0.23651E+03	0.13538E+01	0.5305039E+05
(25)	7P1P1.0	0.47204E+15	0.28771E-01	0.21895E-03	0.3990423E+05
(25)	6F1F3.0	0.61464E+15	0.12778E+02	0.12661E+00	0.3064604E+05
(25)	8P1P1.0	0.67058E+15	0.18487E+00	0.19366E-02	0.2806989E+05
(25)	7F1F3.0	0.7054E+15	0.26775E+01	0.33304E-01	0.2441406E+05
(25)	9P1P1.0	0.80338E+15	0.11671E+00	0.15115E-02	0.2344666E+05
(25)	8F1F3.0	0.87307E+15	0.91772E+00	0.12917E-01	0.2157497E+05
(25)	10P1P1.0	0.89304E+15	0.74992E-01	0.10797E-02	0.2109259E+05
(25)	9F1F3.0	0.94277E+15	0.41982E+00	0.63808E-02	0.1998002E+05
(25)	11P1P1.0	0.95671E+15	0.44250E-01	0.68311E-03	0.1968891E+05
(25)	10F1F3.0	0.99250E+15	0.22495E+00	0.35993E-02	0.1897893E+05
(25)	12P1P1.0	0.99890E+15	0.60934E-01	0.98126E-03	0.1885725E+05
(25)	11F1F3.0	0.10296E+16	0.15426E+00	0.25604E-02	0.1829491E+05
(25)	13P1P1.0	0.10354E+16	0.30481E-01	0.50862E-03	0.1819174E+05

## 14 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		6P1P1.0	43933.000	4.519	49304.801	991.143	1099.905

INTERACTIONS -- DIPOLE -					
DESIGNATION	#	RAA**2	F	W L VAC	
(25)	5S1S0.0	0.19997E+16	0.14709E+01	0.14225E+00	0.9419742E+04
(25)	4J1D2.0	0.12498E+16	0.10286E+01	0.12435E-01	0.1507159E+05
(25)	6S1S0.0	0.40442E+15	0.82616E+02	0.16159E+01	0.4657662E+05
(25)	5D1D2.0	0.19100E+15	0.21457E+03	0.39642E+00	0.9861931E+05
(25)	7S1S0.0	0.64609E+14	0.28516E+03	0.29702E+00	0.2915452E+06
(25)	6D1D2.0	0.19891E+15	0.50717E+03	0.16264E+01	0.9469694E+05
(25)	8S1S0.0	0.36807E+15	0.12196E+01	0.72365E-02	0.5117707E+05
(25)	7D1D2.0	0.44756E+15	0.62186E+01	0.44869E-01	0.4208754E+05
(25)	9S1S0.0	0.54664E+15	0.26262E+00	0.23144E-02	0.3445899E+05
(25)	10S1S0.0	0.65934E+15	0.10415E+00	0.11079E-02	0.2854696E+05
(25)	11S1S0.0	0.73651E+15	0.49895E-01	0.59243E-03	0.2557545E+05
(25)	12S1S0.0	0.79019E+15	0.33394E-01	0.42541E-03	0.2383790E+05

## INTERACTIONS -- QUADRUPOLE -

0.38202E+16	0.58032E+06
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## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		733S1.0	43980.000	4.533	49304.801	1070.987	1053.402

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(2S)	4P3P0.0	0.54292E+16	0.11593E-01	0.30441E-02	0.3459451E+04
(2S)	4P3P1.0	0.54193E+16	0.34773E-01	0.30364E-02	0.3475843E+04
(2S)	4P3P2.0	0.53995E+16	0.57664E-01	0.30274E-02	0.3488575E+04
(2S)	5P3P0.0	0.14001E+16	0.37276E+00	0.25238E-01	0.1345352E+05
(2S)	5P3P1.0	0.13988E+16	0.11181E+01	0.25214E-01	0.1346626E+05
(2S)	5P3P2.0	0.13948E+16	0.18635E+01	0.25143E-01	0.1350439E+05
(2S)	6P3P0.0	0.27614E+15	0.32510E+02	0.43419E+00	0.68821281E+05
(2S)	6P3P1.0	0.27539E+15	0.97529E+02	0.43300E+00	0.6839944E+05
(2S)	6P3P2.0	0.27488E+15	0.16255E+03	0.43004E+00	0.6877575E+05
(2S)	7P3P0.0	0.18479E+15	0.84151E+02	0.25069E+00	0.1019367E+06
(2S)	7P3P1.0	0.18403E+15	0.25245E+03	0.74898E+00	0.1023541E+06
(2S)	7P3P2.0	0.18479E+15	0.42075E+03	0.12534E+01	0.1019367E+06

## 16 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		853S1.0	45738.000	5.545	49304.801	2379.301	730.677

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	W L VAC
(2S)	4P3P0.0	0.57604E+16	0.51283E-02	0.14287E-02	0.3270004E+04
(2S)	4P3P1.0	0.57504E+16	0.15385E-01	0.14262E-02	0.3275681E+04
(2S)	4P3P2.0	0.57306E+16	0.25641E-01	0.14213E-02	0.3286987E+04
(2S)	5P3P0.0	0.17313E+16	0.10176E+00	0.85206E-02	0.1088021E+05
(2S)	5P3P1.0	0.17299E+16	0.30527E+00	0.85139E-02	0.1088850E+05
(2S)	5P3P2.0	0.17200E+16	0.50880E+00	0.84946E-02	0.1091345E+05
(2S)	6P3P0.0	0.60729E+15	0.10922E+01	0.32079E-01	0.3101737E+05
(2S)	6P3P1.0	0.60654E+15	0.32765E+01	0.32039E-01	0.3105590E+05
(2S)	6P3P2.0	0.60503E+15	0.54610E+01	0.31960E-01	0.3113325E+05
(2S)	7P3P0.0	0.14636E+15	0.79988E+02	0.56620E+00	0.1287001E+06
(2S)	7P3P1.0	0.14711E+15	0.23996E+03	0.56910E+00	0.1280409E+06
(2S)	7P3P2.0	0.14636E+15	0.39994E+03	0.56620E+00	0.1287001E+06

## 17 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		7D3D1.0	46302.000	6.046	49308.801	3029.473	1901.190

INTERACTIONS -- DIPOLE --					
DESIGNATION		W	RAA**2	F	W L VAC
(25)	4P3P0.0	0.58066E+16	0.90227E-01	0.25601E-01	0.3210788E+04
(25)	4P3P1.0	0.58566E+16	0.67609E-01	0.63692E-02	0.3216281E+04
(25)	4P3P2.0	0.58369E+16	0.45114E-02	0.25471E-03	0.3227100E+04
(25)	5P3P0.0	0.18375E+16	0.56745E+00	0.50429E-01	0.1025115E+05
(25)	5P3P1.0	0.18362E+16	0.42559E+00	0.12598E-01	0.1025851E+05
(25)	5P3P2.0	0.18322E+16	0.28373E-01	0.50285E-03	0.1028066E+05
(25)	4F3F2.0	0.77832E+15	0.69182E-02	0.52085E-04	0.2420135E+05
(25)	6P3P0.0	0.71353E+15	0.40709E+01	0.14048E+00	0.2639915E+05
(25)	6P3P1.0	0.71277E+15	0.30532E+01	0.35064E-01	0.2642700E+05
(25)	6P3P2.0	0.71127E+15	0.20355E+00	0.14004E-02	0.2648305E+05
(25)	5F3F2.0	0.29008E+15	0.31322E+00	0.87886E-03	0.6493506E+05
(25)	7P3P0.0	0.25250E+15	0.45443E+02	0.55516E+00	0.7457119E+05
(25)	7P3P1.0	0.25335E+15	0.34082E+02	0.13920E+00	0.7434944E+05
(25)	7P3P2.0	0.25260E+15	0.22722E+01	0.55516E-02	0.7457119E+05
(25)	6F3F2.0	0.25994E+14	0.10864E+04	0.27317E+00	0.7246376E+06
(25)	7F3F2.0	0.13261E+15	0.63477E+03	0.13570E+01	0.1420454E+06
(25)	8F3F2.0	0.23508E+15	0.59143E+02	0.22414E+00	0.8012819E+05
(25)	9F3F2.0	0.30515E+15	0.16393E+02	0.80644E-01	0.6172639E+05
(25)	10F3F2.0	0.35488E+15	0.67803E+01	0.38791E-01	0.5307855E+05
(25)	11F3F2.0	0.39180E+15	0.35262E+01	0.22273E-01	0.4807692E+05
(25)	12F3F2.0	0.41967E+15	0.21150E+01	0.14316E-01	0.4486316E+05
(25)	13F3F2.0	0.44172E+15	0.14085E+01	0.10030E-01	0.4264392E+05

## INTERACTIONS -- QUADRUPOLE --

0.16113E+16	0.10826E+08
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## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		953S1.0	46748.000	6.550	49304.801	4621.859	25.576

INTERACTIONS -- DIPOLE --					
DESIGNATION		W	RAA**2	F	W L VAC
(25)	4P3P0.0	0.59506E+16	0.27629E-02	0.79515E-03	0.3165458E+04
(25)	4P3P1.0	0.59407E+16	0.82884E-02	0.79379E-03	0.3170778E+04
(25)	4P3P2.0	0.59209E+16	0.13814E-01	0.79116E-03	0.3181370E+04
(25)	5P3P0.0	0.19215E+16	0.44106E-01	0.40989E-02	0.9802957E+04
(25)	5P3P1.0	0.19202E+16	0.13232E+00	0.40960E-02	0.9809691E+04
(25)	5P3P2.0	0.19102E+16	0.22053E+00	0.40876E-02	0.9829941E+04
(25)	6P3P0.0	0.79754E+15	0.26591E+00	0.10237E-01	0.2361832E+05
(25)	6P3P1.0	0.79678E+15	0.79772E+00	0.10247E-01	0.2364066E+05
(25)	6P3P2.0	0.79528E+15	0.13296E+01	0.10228E-01	0.2368546E+05
(25)	7P3P0.0	0.33601E+15	0.25291E+01	0.41173E-01	0.5595971E+05
(25)	7P3P1.0	0.33736E+15	0.75870E+01	0.41264E-01	0.5583473E+05
(25)	7P3P2.0	0.33661E+15	0.12645E+02	0.41173E-01	0.5595971E+05

PR (2S)	EE 7F3F2.0	DESIG 47006.000	LEVEL	N EFF 6.907	S. LIMIT 49304.801	RAA**2 4856.117	S. RAA***2 2230.458
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INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA***2	F	M L VAC
(2S)	40301.0	0.17439E+16	0.15410E+00	0.72208E-02	0.1060147E+05
(2S)	40302.0	0.17433E+16	0.26537E-01	0.80204E-03	0.1080497E+05
(2S)	40303.0	0.17422E+16	0.81537E-03	0.16358E-04	0.1061198E+05
(2S)	50301.0	0.80300E+15	0.19820E+01	0.42764E-01	0.2345766E+05
(2S)	50302.0	0.80281E+15	0.36704E+00	0.47504E-02	0.2346316E+05
(2S)	50303.0	0.80225E+15	0.10487E-01	0.96860E-04	0.2347969E+05
(2S)	60301.0	0.36863E+15	0.18999E+02	0.18818E+00	0.5107862E+05
(2S)	60302.0	0.36844E+15	0.35182E+01	0.20898E-01	0.5112474E+05
(2S)	60303.0	0.36807E+15	0.10052E+00	0.42605E-03	0.5117707E+05
(2S)	70301.0	0.13261E+15	0.38086E+03	0.13570E+01	0.1420454E+06
(2S)	70302.0	0.13242E+15	0.70530E+02	0.15057E+00	0.1422475E+06
(2S)	70303.0	0.13186E+15	0.20152E+01	0.30597E-02	0.1428571E+06
(2S)	80301.0	0.56510E+13	0.14510E+04	0.13219E+00	0.3333333E+07
(2S)	80302.0	0.64044E+13	0.26670E+03	0.27743E-01	0.2941176E+07
(2S)	80303.0	0.73462E+13	0.76773E+01	0.90924E-03	0.2564102E+07
(2S)	90301.0	0.14071E+15	0.17885E+02	0.40571E-01	0.1338687E+06
(2S)	90302.0	0.14146E+15	0.33121E+01	0.75534E-02	0.1331557E+06
(2S)	90303.0	0.14297E+15	0.94632E-01	0.21811E-03	0.1317522E+06
(2S)	100301.0	0.19326E+15	0.19415E+01	0.60491E-02	0.9746587E+05
(2S)	100302.0	0.19345E+15	0.35953E+00	0.11213E-02	0.9737094E+05
(2S)	100303.0	0.19402E+15	0.10273E-01	0.32131E-04	0.9706737E+05
(2S)	110301.0	0.23602E+15	0.42054E+00	0.16002E-02	0.7980844E+05
(2S)	110302.0	0.23602E+15	0.77678E-01	0.29632E-03	0.7980844E+05
(2S)	110303.0	0.23602E+15	0.22251E-02	0.84666E-05	0.7980844E+05
(2S)	120301.0	0.26899E+15	0.15927E+00	0.69065E-03	0.7002800E+05
(2S)	120302.0	0.26899E+15	0.29494E-01	0.14790E-03	0.7002800E+05
(2S)	120303.0	0.26899E+15	0.84269E-03	0.30543E-05	0.7002800E+05
(2S)	130301.0	0.29460E+15	0.84020E-01	0.39904E-03	0.6393862E+05
(2S)	130302.0	0.29460E+15	0.15559E-01	0.73896E-04	0.6393862E+05
(2S)	130303.0	0.29460E+15	0.44455E-03	0.21114E-05	0.6393862E+05
(2S)	140301.0	0.31457E+15	0.45259E-01	0.22952E-03	0.5988024E+05
(2S)	140302.0	0.31457E+15	0.83812E-02	0.42504E-04	0.5988024E+05
(2S)	140303.0	0.31457E+15	0.23947E-03	0.12144E-05	0.5988024E+05
(2S)	150301.0	0.33077E+15	0.35181E-01	0.18760E-03	0.5694761E+05
(2S)	150302.0	0.33077E+15	0.65149E-02	0.34741E-04	0.5694761E+05
(2S)	150303.0	0.33077E+15	0.18614E-03	0.99260E-06	0.5694761E+05
(2S)	160301.0	0.34358E+15	0.19316E-01	0.10699E-03	0.5482456E+05
(2S)	160302.0	0.34358E+15	0.35770E-02	0.19813E-04	0.5482456E+05
(2S)	160303.0	0.34358E+15	0.10220E-03	0.56609E-06	0.5482456E+05

## INTERACTIONS -- QUADRUPOLE -

0.91093E+15	0.10258E+07
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		80301.0	47036.000	6.961	49304.801	5459.145	3277.397

INTERACTIONS -- DIPOLE --  
DESIGNATION #

			RAA**2	F	W L VAC
(2S)	4P3P0.0	0.60049E+16	0.47454E-01	0.13782E-01	0.3136861E+04
(2S)	4P3P1.0	0.59949E+16	0.35590E-01	0.34396E-02	0.3142085E+04
(2S)	4P3P2.0	0.59751E+16	0.23727E-02	0.13713E-03	0.3152486E+04
(2S)	5P3P0.0	0.19758E+16	0.29192E+00	0.27895E-01	0.9533797E+04
(2S)	5P3P1.0	0.19744E+16	0.21894E+00	0.69690E-02	0.9540104E+04
(2S)	5P3P2.0	0.19705E+16	0.14596E-01	0.27821E-03	0.9559312E+04
(2S)	4F3F2.0	0.91658E+15	0.18631E-01	0.16518E-03	0.2055076E+05
(2S)	6P3P0.0	0.85179E+15	0.15670E+01	0.64577E-01	0.2211411E+05
(2S)	6P3P1.0	0.85103E+15	0.11757E+01	0.16130E-01	0.2213368E+05
(2S)	6P3P2.0	0.84953E+15	0.78378E-01	0.64405E-03	0.2217295E+05
(2S)	5F3F2.0	0.42834E+15	0.40001E+00	0.16573E-02	0.4397537E+05
(2S)	7P3P0.0	0.39086E+15	0.94789E+01	0.17918E+00	0.4619277E+05
(2S)	7P3P1.0	0.39161E+15	0.71091E+01	0.44882E-01	0.4310005E+05
(2S)	7P3P2.0	0.39086E+15	0.47395E+00	0.17919E-02	0.4619277E+05
(2S)	6F3F2.0	0.16425E+15	0.99724E+01	0.15844E-01	0.1146789E+06
(2S)	7F3F2.0	0.56510E+13	0.24183E+04	0.13219E+00	0.3333333E+07
(2S)	8F3F2.0	0.96820E+14	0.69191E+03	0.10800E+01	0.1945525E+06
(2S)	9F3F2.0	0.16689E+15	0.86641E+02	0.23311E+00	0.1128608E+06
(2S)	10F3F2.0	0.21662E+15	0.27027E+02	0.94384E-01	0.8695650E+05
(2S)	11F3F2.0	0.25354E+15	0.12042E+02	0.49219E-01	0.7429419E+05
(2S)	12F3F2.0	0.28161E+15	0.65348E+01	0.29667E-01	0.6688962E+05
(2S)	13F3F2.0	0.30346E+15	0.40211E+01	0.19672E-01	0.6207325E+05

INTERACTIONS -- QUADRUPOLE --

0.17495E+16	0.23047E+06
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PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		8F3F2.0	47550.000	7.906	49304.801	3672.625	1902.309

## INTERACTIONS -- DIPOLE -

DESIGNATION	#	RAA**2	F	M L VAC	
(25)	40301.0	0.18464E+16	0.68719E-01	0.34092E-02	0.1020200E+05
(25)	40302.0	0.18458E+16	0.12720E-01	0.37808E-03	0.1020512E+05
(25)	40303.0	0.18447E+16	0.36360E-03	0.77235E-05	0.1021137E+05
(25)	50301.0	0.90547E+15	0.75518E+00	0.18373E-01	0.2080259E+05
(25)	50302.0	0.90528E+15	0.13985E+00	0.20410E-02	0.2080732E+05
(25)	50303.0	0.90472E+15	0.39957E-02	0.41627E-04	0.2082032E+05
(25)	60301.0	0.47110E+15	0.48630E+01	0.61556E-01	0.3993400E+05
(25)	60302.0	0.47091E+15	0.90054E+00	0.68367E-02	0.4000000E+05
(25)	60303.0	0.47054E+15	0.25730E-01	0.13942E-03	0.4003202E+05
(25)	70301.0	0.23508E+15	0.35486E+02	0.22414E+00	0.8012819E+05
(25)	70302.0	0.23489E+15	0.05714E+01	0.24884E-01	0.8019244E+05
(25)	70303.0	0.23433E+15	0.18776E+00	0.50663E-03	0.8033581E+05
(25)	80301.0	0.96820E+14	0.41513E+03	0.10800E+01	0.1945525E+06
(25)	80302.0	0.96060E+14	0.76678E+02	0.11900E+00	0.1960784E+06
(25)	80303.0	0.95124E+14	0.21966E+01	0.24061E-02	0.1960197E+06
(25)	90301.0	0.38238E+14	0.11206E+04	0.69079E+00	0.4926108E+06
(25)	90302.0	0.38992E+14	0.20751E+03	0.13044E+00	0.4830917E+06
(25)	90303.0	0.40499E+14	0.59290E+01	0.38710E-02	0.4651162E+06
(25)	100301.0	0.90792E+14	0.18049E+02	0.26418E-01	0.2074689E+06
(25)	100302.0	0.90980E+14	0.33424E+01	0.49023E-02	0.2070393E+06
(25)	100303.0	0.91545E+14	0.95497E-01	0.14094E-03	0.2057613E+06
(25)	110301.0	0.13355E+15	0.19756E+01	0.42536E-02	0.1410437E+06
(25)	110302.0	0.13355E+15	0.36585E+00	0.78769E-03	0.1410437E+06
(25)	110303.0	0.13355E+15	0.10453E-01	0.22506E-04	0.1410437E+06
(25)	120301.0	0.16651E+15	0.54057E+00	0.14511E-02	0.1131221E+06
(25)	120302.0	0.16651E+15	0.10011E+00	0.26373E-03	0.1131221E+06
(25)	120303.0	0.16651E+15	0.28602E-02	0.76781E-05	0.1131221E+06
(25)	130301.0	0.19213E+15	0.23900E+00	0.74029E-03	0.9803919E+05
(25)	130302.0	0.19213E+15	0.44259E-01	0.13709E-03	0.9803919E+05
(25)	130303.0	0.19213E+15	0.12640E-02	0.39109E-05	0.9803919E+05
(25)	140301.0	0.21210E+15	0.11405E+00	0.38997E-03	0.8880994E+05
(25)	140302.0	0.21210E+15	0.21120E-01	0.72216E-04	0.8880994E+05
(25)	140303.0	0.21210E+15	0.60344E-03	0.20634E-05	0.8880994E+05
(25)	150301.0	0.22630E+15	0.83511E-01	0.30736E-03	0.8250825E+05
(25)	150302.0	0.22630E+15	0.15465E-01	0.56918E-04	0.8250825E+05
(25)	150303.0	0.22630E+15	0.44186E-03	0.16263E-05	0.8250825E+05
(25)	160301.0	0.24111E+15	0.42470E-01	0.16508E-03	0.7812500E+05
(25)	160302.0	0.24111E+15	0.78648E-02	0.30571E-04	0.7812500E+05
(25)	160303.0	0.24111E+15	0.22471E-03	0.87346E-06	0.7812500E+05

## INTERACTIONS -- QUADRUPOLE -

0.10134E+16	0.30892E+07
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## RUBIDIUM ----- 37 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1S)	33691.020

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 5S2S0.5	0.0	
2	(1S) 5P2P0.5	12578.96	12816.56
3	(1S) 4D2D1.5	19355.01	19355.45
4	(1S) 6S2S0.5	20133.60	
5	(1S) 6P2P0.5	23715.19	23792.69
6	(1S) 5D2D1.5	25700.56	25703.52
7	(1S) 7S2S0.5	26311.46	
8	(1S) 4F2F2.5	26791.98	26791.98
9	(1S) 7P2P0.5	27835.05	27870.14
10	(1S) 6D2D1.5	28687.15	28689.41
11	(1S) 8S2S0.5	29046.84	
12	(1S) 5F2F2.5	29277.58	29277.59
13	(1S) 5G2G3.5	29297.60	29297.60
14	(1S) 8P2P0.5	29834.96	29853.82
15	(1S) 7D2D1.5	30260.18	30261.69
16	(1S) 9S2S0.5	30499.06	
17	(1S) 6F2F2.5	30627.77	30627.78
18	(1S) 6G2G3.5	30636.90	30636.90
19	(1S) 6H2H4.5	30643.50	30643.50
20	(1S) 9P2P0.5	30958.94	30970.22
21	(1S) 8D2D1.5	31221.47	31222.48
22	(1S) 10S2S0.5	31362.36	
23	(1S) 7F2F2.5	31441.52	31441.53
24	(1S) 10P2P0.5	31653.88	31661.19
25	(1S) 9D2D1.5	31821.88	31822.58
26	(1S) 11S2S0.5	31917.25	
27	(1S) 8F2F2.5	31969.43	31969.43
28	(1S) 1P2P0.5	32113.58	32118.55
29	(1S) 10D2D1.5	32227.68	32228.16

Table 19. Rubidium

## 1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		5S2S0.5	0.0	1.804	33691.020	28.126	25.925

INTERACTIONS -- DIPOLE --			RAA**2	F	W L VAC
DESIGNATION	#				
(1S)	5P2P0.5	0.23694E+16	0.85272E+01	0.32573E+00	0.7949781E+04
(1S)	5P2P1.5	0.24142E+16	0.17054E+02	0.66376E+00	0.7802406E+04
(1S)	6P2P0.5	0.44671E+16	0.91644E-01	0.65999E-02	0.4210703E+04
(1S)	6P2P1.5	0.44617E+16	0.18329E+00	0.13243E-01	0.4202969E+04
(1S)	7P2P0.5	0.52432E+16	0.14643E-01	0.12378E-02	0.3592593E+04
(1S)	7P2P1.5	0.52498E+16	0.29287E-01	0.24756E-02	0.3588069E+04
(1S)	8P2P0.5	0.50199E+16	0.46278E-02	0.41928E-03	0.3351772E+04
(1S)	8P2P1.5	0.50234E+16	0.92555E-02	0.83908E-03	0.3349655E+04
(1S)	9P2P0.5	0.58316E+16	0.19683E-02	0.18693E-03	0.3230084E+04
(1S)	9P2P1.5	0.58337E+16	0.39766E-02	0.37399E-03	0.3223908E+04
(1S)	10P2P0.5	0.59625E+16	0.10213E-02	0.98167E-04	0.3159170E+04
(1S)	10P2P1.5	0.59639E+16	0.20425E-02	0.19638E-03	0.3158441E+04
(1S)	11P2P0.5	0.60491E+16	0.58672E-03	0.57217E-04	0.3113948E+04
(1S)	11P2P1.5	0.60500E+16	0.11734E-02	0.11445E-03	0.3113465E+04

## 2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		5P2P0.5	12578.961	2.288	33691.020	55.330	57.549

INTERACTIONS -- DIPOLE --			RAA**2	F	W L VAC
DESIGNATION	#				
(1S)	5S2S0.5	0.23694E+16	0.85272E+01	0.32573E+00	0.7949781E+04
(1S)	4D2D1.5	0.12764E+16	0.38612E+02	0.79451E+00	0.1475786E+05
(1S)	6S2S0.5	0.14230E+16	0.81429E+01	0.18681E+00	0.1323689E+05
(1S)	5D2D1.5	0.24717E+16	0.60012E+00	0.24231E-01	0.7621020E+04
(1S)	7S2S0.5	0.25867E+16	0.43598E+00	0.18180E-01	0.7201992E+04
(1S)	6D2D1.5	0.30342E+16	0.44201E+00	0.21622E-01	0.6208020E+04
(1S)	8S2S0.5	0.31020E+16	0.12494E+00	0.62480E-02	0.6072426E+04
(1S)	7D2D1.5	0.33343E+16	0.24498E+00	0.13169E-01	0.5649328E+04
(1S)	9S2S0.5	0.33755E+16	0.55914E-01	0.30427E-02	0.5580324E+04
(1S)	8D2D1.5	0.35116E+16	0.14663E+00	0.83012E-02	0.5304082E+04
(1S)	10S2S0.5	0.35381E+16	0.30697E-01	0.17510E-02	0.5323848E+04
(1S)	9D2D1.5	0.36247E+16	0.94579E-01	0.55268E-02	0.5190715E+04
(1S)	11S2S0.5	0.36427E+16	0.18952E-01	0.11130E-02	0.5171086E+04
(1S)	10D2D1.5	0.37011E+16	0.64671E-01	0.38587E-02	0.5089387E+04

## INTERACTIONS -- QUADRUPOLE --

0.36806E+16	0.14382E+04
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PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15) SP2P1.5	12816.559	2.288	33691.020	55.330	57.549

INTERACTIONS -- DIPOLE -  
DESIGNATION #

	RAA**2	F	W L VAC
(15) 5S250.5	0.24142E+16	0.85272E+01	0.66376E+00
(15) 40201.5	0.12316E+16	0.38612E+01	0.76665E-01
(15) 40202.5	0.12317E+16	0.34751E+02	0.69003E+00
(15) 6S250.5	0.13763E+16	0.81428E+01	0.18093E+00
(15) 50201.5	0.24269E+16	0.60812E-01	0.23743E-02
(15) 50202.5	0.24275E+16	0.54730E+00	0.21418E-01
(15) 75250.5	0.25420E+16	0.43596E+00	0.17806E-01
(15) 60201.5	0.29895E+16	0.44202E-01	0.21303E-02
(15) 60202.5	0.29899E+16	0.39761E+00	0.19175E-01
(15) 85250.5	0.30572E+16	0.12494E+00	0.61573E-02
(15) 70201.5	0.32895E+16	0.24498E-01	0.12922E-02
(15) 70202.5	0.32898E+16	0.22049E+00	0.11644E-01
(15) 95250.5	0.33308E+16	0.55914E-01	0.30024E-02
(15) 80201.5	0.34668E+16	0.14663E-01	0.81955E-03
(15) 80202.5	0.34670E+16	0.13197E+00	0.73763E-02
(15) 105250.5	0.34934E+16	0.30697E-01	0.17288E-02
(15) 90201.5	0.35799E+16	0.94579E-02	0.54585E-03
(15) 90202.5	0.35801E+16	0.85121E-01	0.49128E-02
(15) 115250.5	0.35979E+16	0.18952E-01	0.10993E-02
(15) 100201.5	0.36564E+16	0.64671E-02	0.38121E-03
(15) 100202.5	0.36565E+16	0.58204E-01	0.34310E-02

INTERACTIONS -- QUADRUPOLE -

0.36358E+16	0.10001E+03
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4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		652P0.5	23715.191	3.324	33691.020	277.651	280.134

INTERACTIONS -- DIPOLE -							
DESIGNATION	M	RAA**2	F	M L VAC			
(15)	552S0.5	0.44671E+16	0.91644E-01	0.65999E-02	0.4216703E+04		
(15)	402D1.5	0.62131E+15	0.12764E+02	0.84634E-01	0.2293483E+05		
(15)	652S0.5	0.67465E+15	0.45299E+02	0.49259E+00	0.2792056E+05		
(15)	502D1.5	0.37367E+15	0.17341E+03	0.10455E+01	0.5036852E+05		
(15)	752S0.5	0.48905E+15	0.42999E+02	0.33901E+00	0.3851680E+05		
(15)	602D1.5	0.93654E+15	0.12167E+01	0.18400E-01	0.2011280E+05		
(15)	852S0.5	0.10043E+16	0.16967E+01	0.27471E-01	0.1875592E+05		
(15)	702D1.5	0.12366E+16	0.83911E+00	0.16728E-01	0.1523232E+05		
(15)	952S0.5	0.12778E+16	0.43691E+00	0.90006E-02	0.1474085E+05		
(15)	802D1.5	0.14139E+16	0.52825E+00	0.12041E-01	0.1332216E+05		
(15)	1052S0.5	0.14405E+16	0.18579E+00	0.43143E-02	0.1307673E+05		
(15)	902D1.5	0.15270E+16	0.32700E+00	0.80501E-02	0.1233549E+05		
(15)	1152S0.5	0.15450E+16	0.99311E-01	0.24736E-02	0.1219206E+05		
(15)	1002D1.5	0.16035E+16	0.21693E+00	0.56077E-02	0.1174745E+05		

INTERACTIONS -- QUADRUPOLE --

0.20529E+16	0.86937E+05
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ORIGINAL PAGE IS  
OF POOR QUALITY

5 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		6P2P1.5	23792.691	3.324	33691.020	277.651	286.134

INTERACTIONS -- DIPOLE -  
DESIGNATION

		#	RAA**2	F	# L VAC
(15)	55250.5	0.44817E+16	0.91644E-01	0.13243E-01	0.4202969E+04
(15)	40201.5	0.83590E+15	0.12784E+01	0.17223E-01	0.2253430E+05
(15)	40202.5	0.83582E+15	0.11506E+02	0.10336E+00	0.2253652E+05
(15)	65250.5	0.68924E+15	0.45299E+02	0.10067E+01	0.2732920E+05
(15)	50201.5	0.35938E+15	0.17341E+02	0.10047E+00	0.5241455E+05
(15)	50202.5	0.35993E+15	0.15607E+03	0.90563E+00	0.5233333E+05
(15)	75250.5	0.47445E+15	0.42998E+02	0.32889E+00	0.3970192E+05
(15)	60201.5	0.62195E+15	0.12167E+00	0.13113E-02	0.2043127E+05
(15)	60202.5	0.92237E+15	0.10968E+01	0.16310E-01	0.2042134E+05
(15)	85250.5	0.98970E+15	0.16967E+01	0.27072E-01	0.1903258E+05
(15)	70201.5	0.12220E+16	0.83911E-01	0.16531E-02	0.1541429E+05
(15)	70202.5	0.12223E+16	0.75520E+00	0.14381E-01	0.1541009E+05
(15)	95250.5	0.12632E+16	0.43690E+00	0.88977E-02	0.1491120E+05
(15)	80201.5	0.13993E+16	0.52825E-01	0.11917E-02	0.1346116E+05
(15)	80202.5	0.13995E+16	0.47543E+00	0.10727E-01	0.1345933E+05
(15)	105250.5	0.14259E+16	0.18578E+00	0.42706E-02	0.1321062E+05
(15)	90201.5	0.15124E+16	0.32701E-01	0.79732E-03	0.1245456E+05
(15)	90202.5	0.15126E+16	0.29430E+00	0.71764E-02	0.1245347E+05
(15)	115250.5	0.15304E+16	0.99311E-01	0.24502E-02	0.1230836E+05
(15)	100201.5	0.15389E+16	0.21693E-01	0.55567E-03	0.1185538E+05
(15)	100202.5	0.15889E+16	0.19524E+00	0.50013E-02	0.1185470E+05

INTERACTIONS -- QUADRUPOLE -

0.20675E+16	0.12633E+05
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ORIGINAL PAGE IS  
OF POOR QUALITY

## 6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		502D1.5	25700.559	3.705	33691.020	354.334	340.458

INTERACTIONS -- DIPOLE --  
DESIGNATION

		W	RAA***2	F	W L VAC
(1S)	5P2P0.5	0.24717E+16	0.30406E+00	0.24231E-01	0.7621020E+04
(1S)	5P2P1.5	0.24269E+16	0.60812E-01	0.23793E-02	0.7761562E+04
(1S)	6P2P0.5	0.37397E+15	0.86707E+02	0.10455E+01	0.5036852E+05
(1S)	6P2P1.5	0.35938E+15	0.17341E+02	0.10047E+00	0.5241455E+05
(1S)	4F2F2.5	0.20559E+15	0.16671E+03	0.55252E+00	0.9162356E+05
(1S)	7P2P0.5	0.40206E+15	0.27033E+02	0.17522E+00	0.4684955E+05
(1S)	7P2P1.5	0.40807E+15	0.54066E+01	0.35621E-01	0.4609182E+05
(1S)	5F2F2.5	0.67379E+15	0.22927E+02	0.24904E+00	0.2795623E+05
(1S)	8P2P0.5	0.77878E+15	0.14623E+01	0.18359E-01	0.2418729E+05
(1S)	8P2P1.5	0.78233E+15	0.29247E+00	0.36887E-02	0.2407746E+05
(1S)	6F2F2.5	0.92811E+15	0.00816E+01	0.10297E+00	0.2029546E+05
(1S)	9P2P0.5	0.99050E+15	0.37097E+00	0.59238E-02	0.1901725E+05
(1S)	9P2P1.5	0.99262E+15	0.74195E-01	0.11873E-02	0.1697655E+05
(1S)	7F2F2.5	0.10814E+16	0.30051E+01	0.52390E-01	0.1741868E+05
(1S)	10P2P0.5	0.11214E+16	0.15212E+00	0.27501E-02	0.1679735E+05
(1S)	10P2P1.5	0.11228E+16	0.30424E-01	0.55069E-03	0.1677674E+05
(1S)	8F2F2.5	0.11808E+16	0.16109E+01	0.30666E-01	0.1595183E+05
(1S)	11P2P0.5	0.12080E+16	0.78773E-01	0.15341E-02	0.1559328E+05
(1S)	11P2P1.5	0.12089E+16	0.15755E-01	0.30705E-03	0.1558120E+05

## 7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(1S)		752S0.5	26311.461	3.855	33691.020	559.676	552.712

INTERACTIONS -- DIPOLE --  
DESIGNATION

		W	RAA***2	F	W L VAC
(1S)	5P2P0.5	0.25867E+16	0.43596E+00	0.16180E-01	0.7281992E+04
(1S)	5P2P1.5	0.25420E+16	0.87191E+00	0.17806E-01	0.7410203E+04
(1S)	6P2P0.5	0.48905E+15	0.42999E+02	0.33901E+00	0.3851680E+05
(1S)	6P2P1.5	0.47445E+15	0.85597E+02	0.32889E+00	0.3970192E+05
(1S)	7P2P0.5	0.28699E+15	0.13847E+03	0.64005E+00	0.6563444E+05
(1S)	7P2P1.5	0.29360E+15	0.27694E+03	0.13108E+01	0.6415686E+05
(1S)	8P2P0.5	0.66370E+15	0.18770E+01	0.20084E-01	0.2838087E+05
(1S)	8P2P1.5	0.66726E+15	0.37540E+01	0.40382E-01	0.2822977E+05
(1S)	9P2P0.5	0.87542E+15	0.31059E+00	0.43834E-02	0.2151703E+05
(1S)	9P2P1.5	0.87755E+15	0.02118E+00	0.87800E-02	0.2146495E+05
(1S)	10P2P0.5	0.10063E+16	0.10172E+00	0.16503E-02	0.1871811E+05
(1S)	10P2P1.5	0.10077E+16	0.20344E+00	0.33050E-02	0.1869253E+05
(1S)	11P2P0.5	0.10929E+16	0.45546E-01	0.80250E-03	0.1723509E+05
(1S)	11P2P1.5	0.10939E+16	0.91092E-01	0.16004E-02	0.1722033E+05



## 8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		6D2D1.5	26687.148	4.682	33691.020	1015.220	996.177

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	5P2P0.5	0.30342E+16	0.22101E+00	0.21622E-01	0.6208020E+04
(1S)	5P2P1.5	0.29895E+16	0.44202E-01	0.21303E-02	0.6300961E+04
(1S)	6P2P0.5	0.93654E+15	0.60934E+00	0.18400E-01	0.2011280L+05
(1S)	6P2P1.5	0.92195E+15	0.12187E+00	0.18113E-02	0.2043127E+05
(1S)	4F2F2.5	0.35698E+15	0.21590E+02	0.82833E-01	0.5276577E+05
(1S)	7P2P0.5	0.16051E+15	0.25194E+03	0.13038E+01	0.1173574E+06
(1S)	7P2P1.5	0.15390E+15	0.50389E+02	0.12501E+00	0.1223978E+06
(1S)	5F2F2.5	0.11122E+15	0.54265E+03	0.97295E+00	0.1693681E+06
(1S)	8P2P0.5	0.21621E+15	0.76032E+02	0.26502E+00	0.8712219E+05
(1S)	8P2P1.5	0.21976E+15	0.15206E+02	0.53874E-01	0.6571387E+05
(1S)	6F2F2.5	0.36555E+15	0.19356E+02	0.11408E+00	0.5152989L+05
(1S)	9P2P0.5	0.42793E+15	0.44675E+01	0.30810E-01	0.4401809E+05
(1S)	9P2P1.5	0.43005E+15	0.89351E+00	0.61947E-02	0.4380066E+05
(1S)	7F2F2.5	0.51883E+15	0.72502E+01	0.60643E-01	0.3630593E+05
(1S)	10P2P0.5	0.55883E+15	0.11527E+01	0.10385E-01	0.3370714E+05
(1S)	10P2P1.5	0.56021E+15	0.23055E+00	0.20822E-02	0.3362426E+05
(1S)	8F2F2.5	0.61827E+15	0.34502E+01	0.34390E-01	0.3046661E+05
(1S)	11P2P0.5	0.64542E+15	0.47708E+00	0.49641E-02	0.2918489E+05
(1S)	11P2P1.5	0.64636E+15	0.95417E-01	0.99426E-03	0.2914260E+05

## 9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		7D2D1.5	30280.180	5.671	33691.020	2312.675	2265.158

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(1S)	5P2P0.5	0.33343E+16	0.12249E+00	0.13169E-01	0.5647328E+04
(1S)	5P2P1.5	0.32595E+16	0.24498E-01	0.12992E-02	0.5726187E+04
(1S)	6P2P0.5	0.12366E+16	0.41955E+00	0.16728E-01	0.1523232E+05
(1S)	6P2P1.5	0.12220E+16	0.83911E-01	0.16531E-02	0.1541429E+05
(1S)	4F2F2.5	0.65706E+15	0.13442E+01	0.94925E-02	0.2666809E+05
(1S)	7P2P0.5	0.46058E+15	0.87345E+00	0.12971E-01	0.4089764E+05
(1S)	7P2P1.5	0.45397E+15	0.17469E+00	0.12785E-02	0.4149310E+05
(1S)	5F2F2.5	0.18886E+15	0.94668E+02	0.19256E+00	0.9974050E+05
(1S)	8P2P0.5	0.83804E+14	0.57715E+03	0.15606E+01	0.2246087E+06
(1S)	6P2P1.5	0.80311E+14	0.11543E+03	0.14445E+00	0.2345439E+06
(1S)	6F2F2.5	0.65474E+14	0.12469E+04	0.13162E+01	0.2876954E+06
(1S)	9P2P0.5	0.12786E+15	0.17287E+03	0.35631E+00	0.1473271E+06
(1S)	9P2P1.5	0.12998E+15	0.34574E+02	0.72447E-01	0.1449193E+06
(1S)	7F2F2.5	0.21876E+15	0.17066E+02	0.60186E-01	0.8610744E+05
(1S)	10P2P0.5	0.25876E+15	0.10361E+02	0.43223E-01	0.7279612E+05
(1S)	10P2P1.5	0.26013E+15	0.26723E+01	0.86906E-02	0.7241062E+05
(1S)	8F2F2.5	0.31820E+15	0.76199E+01	0.39089E-01	0.5919787E+05
(1S)	11P2P0.5	0.34535E+15	0.26613E+01	0.14817E-01	0.5454352E+05
(1S)	11P2P1.5	0.34628E+15	0.53226E+00	0.29714E-02	0.5439598E+05

STRONTIUM ---- 38 ---- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	45925.602
	2	(2D)	46773.602 *

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2S) 5P3P0.0	14317.52	14504.35	14898.56
2	(2S) 4D3D1.0	16159.05	18218.80	18319.27
3	(2S) 4D1D2.0	20149.70		
4	(2S) 5P1P1.0	21698.48		
5	(2S) 6S3S1.0	29038.80		
6	(2S) 6S1S0.0	30591.80		
7	(2D) 5P3F2.0	33266.87	33589.72	33919.33
8	(2D) 5P1D2.0	33826.93		
9	(2S) 6P3P0.0	33853.52	33956.33	33973.08
10	(2S) 6P1P1.0	34098.44		
11	(2S) 5D1D2.0	34727.48		
12	(2S) 5D3D1.0	35006.94	35022.02	35045.05
13	(2D) 5P3D1.0	36264.18	36381.77	36559.52
14	(2D) 5P3P0.0	37292.11	37302.76	37336.62
15	(2S) 7S3S1.0	37424.71		
16	(2D) 5P1F3.0	38008.00		
17	(2S) 7S1S0.0	38444.05		
18	(2S) 4F3F2.0	38750.45	38752.44	38755.20
19	(2S) 7P1P1.0	38906.90		
20	(2S) 7P3P0.0	39411.70	39426.47	39457.41
21	(2S) 4F1F3.0	39539.04		
22	(2S) 6D3D1.0	39685.90	39690.85	39703.15
23	(2S) 6D1D2.0	39733.11		
24	(2S) 8S3S1.0	40761.44		
25	(2S) 8S1S0.0	41052.50		
26	(2S) 8P1P1.0	41172.15		
27	(2S) 5F3F2.0	41304.61	41365.53	41366.70
28	(2S) 5F1F3.0	41518.91		
29	(2S) 7D1D2.0	41831.70		
30	(2S) 7D3D1.0	41864.40	41869.32	41874.90
31	(2S) 9S3S1.0	42451.20		
32	(2S) 9P1P1.0	42462.36		
33	(2S) 9S1S0.0	42590.00		
34	(2S) 6F3F2.0	42776.20	42776.60	42778.16
35	(2S) 6F1F3.0	42839.40		
36	(2S) 8D1D2.0	43020.90		
37	(2S) 8D3D1.0	43066.70	43070.31	43074.77
38	(2S) 10P1P1.0	43327.94		
39	(2S) 10S3S1.0	43427.94		
40	(2S) 10S1S0.0	43512.60		
41	(2S) 7F3F2.0	43624.00	43629.51	43624.51
42	(2S) 7F1F3.0	43650.10		
43	(2S) 9D1D2.0	43780.60		
44	(2S) 9D3D1.0	43807.60	43812.60	43812.60

Table 20. Strontium

# TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
45	(2S)11P1P1.0	43938.26		
46	(2S)11S3S1.0	44043.40		
47	(2S)11S1S0.0	44097.10		
48	(2S) 8F3F2.0	44171.80	44171.80	44171.80
49	(2S) 6F1F3.0	44190.10		
50	(2S)10D3D1.0	44283.80	44287.10	44299.70
51	(2S)12P1P1.0	44365.90		
52	(2S)12S3S1.0	44457.30		
53	(2S) 9F3F2.0	44544.60	44544.60	44544.60
54	(2S) 9F1F3.0	44556.10		
55	(2S)11D3D1.0	44618.40	44625.10	44625.10
56	(2S)13P1P1.0	44675.10		
57	(2S)10F3F2.0	44809.80	44809.80	44809.80
58	(2S)10F1F3.0	44819.10		
59	(2S)12D3D1.0	44860.00	44860.00	44864.90
60	(2S)14P1P1.0	44903.50		
61	(2S)11F3F2.0	45005.60	45005.60	45005.60
62	(2S)11F1F3.0	45012.00		
63	(2S)13D3D1.0	45043.90	45043.90	45043.90
64	(2S)12F3F2.0	45155.60	45155.60	45155.60
65	(2S)12F1F3.0	45160.40		
66	(2S)13F3F2.0	45274.10	45274.10	45274.10
67	(2S)13F1F3.0	45277.90		
68	(2S)15D3D1.0	45287.40	45287.40	45287.40
69	(2S)16D3D1.0	45372.60	45372.60	45372.60

ORIGINAL PAGE IS  
OF POOR QUALITY

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		SP3P0.0	14317.520	1.874	45925.602	22.038	8.258

INTERACTIONS -- DIPOLE --  
DESIGNATION #

			RAA**2	F	W L VAC
(2S)	6S3S1.0	0.27730E+16	0.20307E+01	0.90783E-01	0.6792887E+04
(2S)	5D3D1.0	0.38972E+16	0.39149E+01	0.24596E+00	0.4833387E+04
(2S)	7S3S1.0	0.43526E+16	0.14948E+00	0.10489E-01	0.4327656E+04
(2S)	6D3D1.0	0.47785E+16	0.98897E+00	0.76032E-01	0.3941915E+04
(2S)	8S3S1.0	0.49811E+16	0.43653E-01	0.35054E-02	0.3781587E+04
(2S)	7D3D1.0	0.51889E+16	0.42638E+00	0.35667E-01	0.3630175E+04
(2S)	9S3S1.0	0.52994E+16	0.19147E-01	0.16358E-02	0.3554458E+04
(2S)	8D3D1.0	0.54153E+16	0.25123E+00	0.20187E-01	0.3478360E+04
(2S)	10S3S1.0	0.54834E+16	0.10212E-01	0.90274E-03	0.3435196E+04
(2S)	9D3D1.0	0.55549E+16	0.13893E+00	0.12442E-01	0.3390948E+04
(2S)	11S3S1.0	0.55993E+16	0.61220E-02	0.55263E-03	0.3364072E+04
(2S)	10D3D1.0	0.56448E+16	0.93138E-01	0.84755E-02	0.3337084E+04
(2S)	12S3S1.0	0.56773E+16	0.39332E-02	0.35999E-03	0.3317874E+04
(2S)	11D3D1.0	0.57076E+16	0.66735E-01	0.61406E-02	0.3300234E+04
(2S)	12D3D1.0	0.57531E+16	0.49922E-01	0.46302E-02	0.3274128E+04
(2S)	13D3D1.0	0.57878E+16	0.37361E-01	0.34860E-02	0.3254532E+04
(2S)	15D3D1.0	0.58336E+16	0.27927E-01	0.26265E-02	0.3228944E+04
(2S)	16D3D1.0	0.58497E+16	0.21363E-01	0.20146E-02	0.3220085E+04

INTERACTIONS -- QUADRUPOLE --

0.47355E+16	0.57430E+03
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ORIGINAL PAGE IS  
OF POOR QUALITY

PR (25)	EE SPGP2.0	DESIG SPGP2.0	LEVEL 14898.562	N EFF 1.874	S. LIMIT 45925.602	RAA**2 22.038	S. RAA**2 8.258
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INTERACTIONS -- DIPOLE -  
DESIGNATION

		#	RAA**2	F	# L VAC
(25)	6S3S1.0	0.26635E+16	0.20307E+01	0.87200E-01	0.7072016E+04
(25)	5D3D1.0	0.37877E+16	0.39149E-01	0.23906E-02	0.4973051E+04
(25)	5D3D2.0	0.37906E+16	0.58723E+00	0.35805E-01	0.4969324E+04
(25)	5D3D3.0	0.37949E+16	0.32885E+01	0.20119E+00	0.4963641E+04
(25)	7S3S1.0	0.42431E+16	0.14948E+00	0.10225E-01	0.4439281E+04
(25)	6D3D1.0	0.46691E+16	0.98697E-02	0.74291E-03	0.4034317E+04
(25)	6D3D2.0	0.46700E+16	0.14804E+00	0.11146E-01	0.4033513E+04
(25)	6D3D3.0	0.46723E+16	0.62905E+00	0.62443E-01	0.4031512E+04
(25)	8S3S1.0	0.48717E+16	0.43653E-01	0.34284E-02	0.3866545E+04
(25)	7D3D1.0	0.50794E+16	0.42636E-02	0.34915E-03	0.3708396E+04
(25)	7D3D2.0	0.50803E+16	0.63956E-01	0.52382E-02	0.3707719E+04
(25)	7D3D3.0	0.50814E+16	0.35816E+00	0.29340E-01	0.3706953E+04
(25)	9S3S1.0	0.51900E+16	0.19146E-01	0.16020E-02	0.3629417E+04
(25)	8D3D1.0	0.53059E+16	0.23123E-02	0.19779E-03	0.3550110E+04
(25)	8D3D2.0	0.53066E+16	0.34684E-01	0.29672E-02	0.3549656E+04
(25)	8D3D3.0	0.53074E+16	0.19423E+00	0.16619E-01	0.3549094E+04
(25)	10S3S1.0	0.53739E+16	0.10212E-01	0.68472E-03	0.3505158E+04
(25)	9D3D1.0	0.54455E+16	0.13893E-02	0.12197E-03	0.3459102E+04
(25)	9D3D2.0	0.54464E+16	0.20839E-01	0.18298E-02	0.3458527E+04
(25)	9D3D3.0	0.54464E+16	0.11670E+00	0.10247E-01	0.3458527E+04
(25)	11S3S1.0	0.54399E+16	0.61220E-02	0.54183E-03	0.3431139E+04
(25)	10D3D1.0	0.55352E+16	0.93139E-03	0.83112E-04	0.3403069E+04
(25)	10D3D2.0	0.55358E+16	0.13971E-01	0.12468E-02	0.3402687E+04
(25)	10D3D3.0	0.55381E+16	0.78236E-01	0.69852E-02	0.3401229E+04
(25)	12S3S1.0	0.55678E+16	0.39332E-02	0.35305E-03	0.3383094E+04
(25)	11D3D1.0	0.55982E+16	0.66735E-03	0.60229E-04	0.3364756E+04
(25)	11D3D2.0	0.55994E+16	0.10010E-01	0.50302E-03	0.3363997E+04
(25)	11D3D3.0	0.55994E+16	0.56057E-01	0.50603E-02	0.3363997E+04
(25)	12D3D1.0	0.56437E+16	0.49922E-03	0.45421E-04	0.3337624E+04
(25)	12D3D2.0	0.56437E+16	0.74882E-02	0.66131E-03	0.3337624E+04
(25)	12D3D3.0	0.56446E+16	0.41934E-01	0.38100E-02	0.3337078E+04
(25)	13D3D1.0	0.56783E+16	0.37361E-03	0.34201E-04	0.3317263E+04
(25)	13D3D2.0	0.56783E+16	0.56041E-02	0.51301E-03	0.3317263E+04
(25)	13D3D3.0	0.56783E+16	0.31383E-01	0.28729E-02	0.3317263E+04
(25)	15D3D1.0	0.57242E+16	0.27927E-03	0.25772E-04	0.3290682E+04
(25)	15D3D2.0	0.57242E+16	0.41891E-02	0.38658E-03	0.3290682E+04
(25)	15D3D3.0	0.57242E+16	0.21459E-01	0.21648E-02	0.3290682E+04
(25)	16D3D1.0	0.57402E+16	0.21363E-03	0.19769E-04	0.3281481E+04
(25)	16D3D2.0	0.57402E+16	0.32044E-02	0.29654E-03	0.3281481E+04
(25)	16D3D3.0	0.57402E+16	0.17945E-01	0.16606E-02	0.3281481E+04

INTERACTIONS -- QUADRUPOLE -

0.46260E+16	0.23157E+03
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## 3 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)	40302.0	18218.797	1.991	45925.602	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

## 4 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)	40303.0	18319.266	1.991	45925.602	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

## 5 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)	40102.0	20149.699	2.063	45925.602	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

## 6 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)	65351.0	29038.797	2.549	45925.602	108.718	100.905

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*\*2

F

W L VAC

(2S)	5P3P0.0	0.27730E+16	0.67692E+00	0.90783E-01	0.6792887E+04
(2S)	5P3P1.0	0.27378E+16	0.20307E+01	0.89629E-01	0.6880207E+04
(2S)	5P3P2.0	0.26635E+16	0.33846E+01	0.87200E-01	0.7072016E+04
(2S)	6P3P0.0	0.90693E+15	0.10286E+02	0.15040E+00	0.2076964E+05
(2S)	6P3P1.0	0.90372E+15	0.30858E+02	0.45256E+00	0.2070593E+05
(2S)	6P3P2.0	0.92945E+15	0.51431E+02	0.77065E+00	0.2026636E+05
(2S)	7P3P0.0	0.19539E+16	0.24860E+00	0.78308E-02	0.9640496E+04
(2S)	7P3P1.0	0.19567E+16	0.74578E+00	0.23525E-01	0.9626789E+04
(2S)	7P3P2.0	0.19625E+16	0.12430E+01	0.39326E-01	0.9598203E+04

PR (2S)	EE 6P3P2.0	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
			33973.082	3.023	45925.602	185.971	173.815

INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	W L VAC
(2S)	6S3S1.0	0.92945E+15	0.30859E+02	0.77065E+00	0.2026636E+05
(2S)	5D3D1.0	0.19474E+15	0.93895E+00	0.29479E-02	0.9672494E+05
(2S)	5D3D2.0	0.19758E+15	0.14084E+02	0.44862E-01	0.9533487E+05
(2S)	5D3D3.0	0.20192E+15	0.78671E+02	0.25675E+00	0.9328594E+05
(2S)	7S3S1.0	0.65017E+15	0.25543E+02	0.26774E+00	0.2697179E+05
(2S)	6D3D1.0	0.10761E+16	0.14512E+00	0.25176E-02	0.1750449E+05
(2S)	6D3D2.0	0.10770E+16	0.21766E+01	0.37797E-01	0.1748935E+05
(2S)	6D3D3.0	0.10793E+16	0.12190E+02	0.21212E+00	0.1745179E+05
(2S)	8S3S1.0	0.12787E+16	0.12374E+01	0.25507E-01	0.1473110E+05
(2S)	7D3D1.0	0.14864E+16	0.35438E-01	0.84923E-03	0.1267216E+05
(2S)	7D3D2.0	0.14874E+16	0.53156E+00	0.12746E-01	0.1266426E+05
(2S)	7D3D3.0	0.14864E+16	0.29768E+01	0.71429E-01	0.1265532E+05
(2S)	9S3S1.0	0.15970E+16	0.33372E+00	0.85919E-02	0.1179507E+05
(2S)	8D3D1.0	0.17129E+16	0.14847E-01	0.41000E-03	0.1099672E+05
(2S)	8D3D2.0	0.17136E+16	0.22270E+00	0.61523E-02	0.1099236E+05
(2S)	8D3D3.0	0.17144E+16	0.12471E+01	0.34470E-01	0.1098697E+05
(2S)	10S3S1.0	0.17810E+16	0.14469E+00	0.41544E-02	0.1057657E+05
(2S)	9D3D1.0	0.18525E+16	0.77089E-02	0.23023E-03	0.1016806E+05
(2S)	9D3D2.0	0.18534E+16	0.11563E+00	0.34551E-02	0.1016310E+05
(2S)	9D3D3.0	0.18534E+16	0.64754E+00	0.19348E-01	0.1016310E+05
(2S)	11S3S1.0	0.18969E+16	0.78171E-01	0.23905E-02	0.9930172E+04
(2S)	10D3D1.0	0.19422E+16	0.47363E-02	0.14830E-03	0.9698645E+04
(2S)	10D3D2.0	0.19428E+16	0.71044E-01	0.22251E-02	0.9695539E+04
(2S)	10D3D3.0	0.19452E+16	0.39785E+00	0.12476E-01	0.9683711E+04
(2S)	12S3S1.0	0.19749E+16	0.48179E-01	0.15339E-02	0.9538145E+04
(2S)	11D3D1.0	0.20052E+16	0.32022E-02	0.10352E-03	0.9393801E+04
(2S)	11D3D2.0	0.20065E+16	0.48033E-01	0.15537E-02	0.9367891E+04
(2S)	11D3D3.0	0.20065E+16	0.26898E+00	0.87009E-02	0.9387891E+04
(2S)	12D3D1.0	0.20507E+16	0.22972E-02	0.75948E-04	0.9185336E+04
(2S)	12D3D2.0	0.20507E+16	0.34458E-01	0.11392E-02	0.9185336E+04
(2S)	12D3D3.0	0.20516E+16	0.19297E+00	0.63825E-02	0.9181203E+04
(2S)	13D3D1.0	0.20854E+16	0.16648E-02	0.55967E-04	0.9032754E+04
(2S)	13D3D2.0	0.20854E+16	0.24971E-01	0.83950E-03	0.9032754E+04
(2S)	13D3D3.0	0.20854E+16	0.13984E+00	0.47012E-02	0.9032754E+04
(2S)	15D3D1.0	0.21312E+16	0.98309E-03	0.33777E-04	0.8838359E+04
(2S)	15D3D2.0	0.21312E+16	0.14746E-01	0.50665E-03	0.8838359E+04
(2S)	15D3D3.0	0.21312E+16	0.82579E-01	0.28373E-02	0.8838359E+04
(2S)	16D3D1.0	0.21473E+16	0.76923E-03	0.26629E-04	0.8772297E+04
(2S)	16D3D2.0	0.21473E+16	0.11538E-01	0.39942E-03	0.8772297E+04
(2S)	16D3D3.0	0.21473E+16	0.64615E-01	0.22368E-02	0.8772297E+04

## INTERACTIONS -- QUADRUPOLE --

0.37024E+16	0.12926E+05
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6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		SD3D1.0	35006.941	3.173	45925.602	167.234	169.097

INTERACTIONS -- DIPOLE -

DESIGNATION			RAA**2	F	W L VAC
(25)	5P3P0.0	0.38772E+16	0.13050E+01	0.24596E+00	0.4833387E+04
(25)	5P3P1.0	0.38620E+16	0.97871E+00	0.60935E-01	0.4677430E+04
(25)	5P3P2.0	0.37877E+16	0.65248E-01	0.23906E-02	0.4973051E+04
(25)	6P3P0.0	0.21727E+15	0.31298E+02	0.32888E+00	0.8669825E+05
(25)	6P3P1.0	0.21447E+15	0.23473E+02	0.81162E-01	0.8782637E+05
(25)	6P3P2.0	0.19474E+15	0.15649E+01	0.29479E-02	0.9672494E+05
(25)	4F3F2.0	0.70515E+15	0.10629E+03	0.12083E+01	0.2671288E+05
(25)	7P3P0.0	0.82970E+15	0.10720E+01	0.14340E-01	0.2270270E+05
(25)	7P3P1.0	0.83249E+15	0.80403E+00	0.10791E-01	0.2252633E+05
(25)	7P3P2.0	0.83831E+15	0.53603E-01	0.72443E-03	0.2246954E+05
(25)	5F3F2.0	0.11976E+16	0.18997E+01	0.36676E-01	0.1572903E+05
(25)	6F3F2.0	0.14635E+16	0.20173E+00	0.47593E-02	0.1287124E+05
(25)	7F3F2.0	0.16232E+16	0.45014E-01	0.11779E-02	0.1160489E+05
(25)	8F3F2.0	0.17263E+16	0.16561E-01	0.46092E-03	0.1091124E+05
(25)	9F3F2.0	0.17966E+16	0.79014E-02	0.22865E-03	0.1048475E+05
(25)	10F3F2.0	0.18465E+16	0.43676E-02	0.13002E-03	0.1020110E+05
(25)	11F3F2.0	0.18834E+16	0.29860E-02	0.90664E-04	0.1000134E+05
(25)	12F3F2.0	0.19117E+16	0.37403E-02	0.11527E-03	0.9853516E+04
(25)	13F3F2.0	0.19340E+16	0.79499E-02	0.24787E-03	0.9739769E+04

INTERACTIONS -- QUADRUPOLE -

0.19525E+16	0.36402E+05
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9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		50303.0	35045.055	3.173	45925.602	107.234	169.096

INTERACTIONS -- DIPOLE --  
DESIGNATION

		#	RAA**2	F	# L VAC
(25)	5P3P2.0	0.37949E+16	0.23489E+01	0.20119E+00	0.4963641E+04
(25)	6P3P2.0	0.20194E+15	0.56336E+02	0.25675E+00	0.9328574E+05
(25)	4F3F2.0	0.69797E+15	0.24103E+00	0.27121E-02	0.2698765E+05
(25)	4F3F3.0	0.69834E+15	0.04358E+01	0.94773E-01	0.2697316E+05
(25)	4F3F4.0	0.69866E+15	0.97015E+02	0.10998E+01	0.2695312E+05
(25)	7P3P2.0	0.23113E+15	0.19297E+01	0.25856E-01	0.2266363E+05
(25)	5F3F2.0	0.11904E+16	0.43077E-02	0.82668E-04	0.1582389E+05
(25)	5F3F3.0	0.11906E+16	0.15077E+00	0.28937E-02	0.1562159E+05
(25)	5F3F4.0	0.11908E+16	0.17446E+01	0.33491E-01	0.1581866E+05
(25)	6F3F2.0	0.14563E+16	0.45743E-03	0.10739E-04	0.1293470E+05
(25)	6F3F3.0	0.14564E+16	0.16010E-01	0.37569E-03	0.1293402E+05
(25)	6F3F4.0	0.14566E+16	0.16526E+00	0.43565E-02	0.1293142E+05
(25)	7F3F2.0	0.16160E+16	0.10207E-03	0.26592E-05	0.1165644E+05
(25)	7F3F3.0	0.16161E+16	0.35725E-02	0.93077E-04	0.1165575E+05
(25)	7F3F4.0	0.16161E+16	0.41340E-01	0.10770E-02	0.1165575E+05
(25)	8F3F2.0	0.17192E+16	0.37555E-04	0.10408E-05	0.1055686E+05
(25)	8F3F3.0	0.17192E+16	0.13144E-02	0.36429E-04	0.1095660E+05
(25)	8F3F4.0	0.17192E+16	0.15209E-01	0.42154E-03	0.1095660E+05
(25)	9F3F2.0	0.17894E+16	0.17917E-04	0.51686E-06	0.1052682E+05
(25)	9F3F3.0	0.17894E+16	0.62709E-03	0.18090E-04	0.1052682E+05
(25)	9F3F4.0	0.17894E+16	0.72564E-02	0.20933E-03	0.1052682E+05
(25)	10F3F2.0	0.18393E+16	0.99040E-05	0.29368E-06	0.1024092E+05
(25)	10F3F3.0	0.18393E+16	0.34663E-03	0.10279E-04	0.1024092E+05
(25)	10F3F4.0	0.18393E+16	0.40111E-02	0.11894E-03	0.1024092E+05
(25)	11F3F2.0	0.18762E+16	0.67710E-05	0.20480E-06	0.1003961E+05
(25)	11F3F3.0	0.18762E+16	0.23698E-03	0.71640E-05	0.1003961E+05
(25)	11F3F4.0	0.18762E+16	0.27422E-02	0.82945E-04	0.1003961E+05
(25)	12F3F2.0	0.19045E+16	0.84815E-05	0.26041E-06	0.9890660E+04
(25)	12F3F3.0	0.19045E+16	0.29685E-03	0.91141E-05	0.9890660E+04
(25)	12F3F4.0	0.19045E+16	0.34350E-02	0.10546E-03	0.9890660E+04
(25)	13F3F2.0	0.19268E+16	0.18027E-04	0.55997E-06	0.9776078E+04
(25)	13F3F3.0	0.19268E+16	0.63094E-03	0.19399E-04	0.9776078E+04
(25)	13F3F4.0	0.19268E+16	0.73009E-02	0.22679E-03	0.9776078E+04

INTERACTIONS -- QUADRUPOLE --

0.19453E+16	0.34279E+05
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ORIGINAL PAGE IS  
OF POOR QUALITY

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S) 4F3F2.0	38750.453	3.910	45925.602	319.022	132.778

INTERACTIONS -- DIPOLE --  
DESIGNATION

	RAA**2	F	W L VAC
(2S) 503D1.0	0.70515E+15	0.63775E+02	0.12083E+01
(2S) 503D2.0	0.70231E+15	0.11810E+02	0.13372E+00
(2S) 503D3.0	0.69797E+15	0.33744E+00	0.27121E-02
(2S) 603D1.0	0.17621E+15	0.47555E+02	0.13509E+00
(2S) 603D2.0	0.17714E+15	0.88065E+01	0.25149E-01
(2S) 603D3.0	0.17940E+15	0.25162E+00	0.72795E-03
(2S) 703D1.0	0.59056E+15	0.17237E+00	0.16299E-02
(2S) 703D2.0	0.58749E+15	0.31919E-01	0.30231E-03
(2S) 703D3.0	0.58854E+15	0.91197E-03	0.86530E-05
(2S) 803D1.0	0.81303E+15	0.21579E-01	0.28284E-03
(2S) 803D2.0	0.81371E+15	0.39961E-02	0.52421E-04
(2S) 803D3.0	0.81455E+15	0.11418E-03	0.14993E-05
(2S) 903D1.0	0.93263E+15	0.62210E-02	0.95541E-04
(2S) 903D2.0	0.95353E+15	0.11520E-02	0.17709E-04
(2S) 903D3.0	0.95353E+15	0.32916E-04	0.50599E-06
(2S) 1003D1.0	0.10423E+16	0.19713E-02	0.33125E-04
(2S) 1003D2.0	0.10429E+16	0.36506E-03	0.61378E-05
(2S) 1003D3.0	0.10453E+16	0.10430E-04	0.17577E-06
(2S) 1103D1.0	0.11053E+16	0.58228E-03	0.10376E-04
(2S) 1103D2.0	0.11066E+16	0.10763E-03	0.19236E-05
(2S) 1103D3.0	0.11066E+16	0.30809E-05	0.54962E-07
(2S) 1203D1.0	0.11508E+16	0.11215E-03	0.20808E-05
(2S) 1203D2.0	0.11508E+16	0.20769E-04	0.39533E-06
(2S) 1203D3.0	0.11517E+16	0.59341E-06	0.11018E-07
(2S) 1303D1.0	0.11855E+16	0.51027E-04	0.97520E-06
(2S) 1303D2.0	0.11855E+16	0.94494E-05	0.18059E-06
(2S) 1303D3.0	0.11855E+16	0.26999E-06	0.51598E-08
(2S) 1503D1.0	0.12313E+16	0.10167E-04	0.20223E-06
(2S) 1503D2.0	0.12313E+16	0.18865E-05	0.37450E-07
(2S) 1603D1.0	0.12474E+16	0.47266E-04	0.95049E-06
(2S) 1603D2.0	0.12474E+16	0.87528E-05	0.17602E-06
(2S) 1603D3.0	0.12474E+16	0.25009E-06	0.50291E-08

INTERACTIONS -- QUADRUPOLE --

0.12288E+16	0.11513E+05
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11 - SEQ. NUM.

PH	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		7P1P1.0	38906.898	3.953	45925.602	571.417	572.451

INTERACTIONS -- DIPOLE --  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	6S150.0	0.15663E+16	0.26312E+00	0.19931E-01	0.1202632E+05
(25)	50102.0	0.78726E+15	0.79337E+01	0.60415E-01	0.2392680E+05
(25)	7S150.0	0.87184E+14	0.16375E+03	0.69047E+00	0.2160556E+06
(25)	60102.0	0.15503E+15	0.34308E+03	0.86078E+00	0.1210339E+06
(25)	8S150.0	0.40416E+15	0.31264E+02	0.20370E+00	0.4660697E+05
(25)	70102.0	0.55093E+15	0.14209E+02	0.12620E+00	0.3419036E+05
(25)	9S150.0	0.69490E+15	0.29958E+01	0.33562E-01	0.2710687E+05
(25)	80102.0	0.77493E+15	0.54237E+01	0.67758E-01	0.2430724E+05
(25)	10S150.0	0.86735E+15	0.88739E+00	0.12411E-01	0.2171221E+05
(25)	90102.0	0.91804E+15	0.22508E+01	0.33312E-01	0.2051628E+05
(25)	11S150.0	0.97765E+15	0.39327E+00	0.61984E-02	0.1926707E+05

INTERACTIONS -- QUADRUPOLE --

0.32415E+16	0.15585E+06
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PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(1S)	31406.711

## TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS	
1	(1S) 6S2S0.5	0.0	
2	(1S) 6P2P0.5	11170.24	11732.35
3	(1S) 7S2S0.5	18535.51	
4	(1S) 7P2P0.5	21765.65	21946.66
5	(1S) 6D2D1.5	22588.89	22631.83
6	(1S) 8S2S0.5	24317.17	
7	(1S) 4F2F2.5	24472.29	24472.46
8	(1S) 8P2P0.5	25709.14	25791.78
9	(1S) 7D2D1.5	26047.86	26068.83
10	(1S) 9S2S0.5	26910.68	
11	(1S) 5F2F2.5	26971.42	26971.56
12	(1S) 5G2G3.5	27010.00	27010.00
13	(1S) 9P2P0.5	27637.29	27681.96
14	(1S) 8D2D1.5	27811.25	27822.94
15	(1S) 10S2S0.5	28300.28	
16	(1S) 6F2F2.5	28329.66	28329.76
17	(1S) 6G2G3.5	28347.00	28347.00
18	(1S) 6H2H4.5	28356.00	28356.00
19	(1S) 10P2P0.5	28727.09	28753.93
20	(1S) 9D2D1.5	28825.90	28836.06
21	(1S) 11S2S0.5	29130.00	
22	(1S) 7F2F2.5	29148.16	29148.23
23	(1S) 11P2P0.5	29403.68	29421.10
24	(1S) 10D2D1.5	29468.54	29473.22
25	(1S) 12S2S0.5	29666.00	
26	(1S) 8F2F2.5	29676.94	29678.98
27	(1S) 12P2P0.5	29852.65	29864.72
28	(1S) 11D2D1.5	29896.64	29899.89
29	(1S) 9F2F2.5	30042.52	30042.54
30	(1S) 13P2P0.5	30166.00	30174.51
31	(1S) 12D2D1.5	30197.02	30199.35
32	(1S) 10F2F2.5	30302.38	30302.38
33	(1S) 14P2P0.5	30393.16	30399.49
34	(1S) 13D2D1.5	30416.06	30417.76
35	(1S) 11F2F2.5	30494.59	30494.59
36	(1S) 15P2P0.5	30563.27	30567.98
37	(1S) 14D2D1.5	30560.46	30581.79
38	(1S) 12F2F2.5	30640.93	30640.93
39	(1S) 16P2P0.5	30693.76	30697.52
40	(1S) 15D2D1.5	30707.11	30707.96

1 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)	65250.5	0.0	1.869	31406.711	32.237	29.332

INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	L VAC
(15)	6P2P0.5	0.21056E+16	0.96346E+01	0.32705E+00	0.6945953E+04
(15)	6P2P1.5	0.22100E+16	0.19269E+02	0.68652E+00	0.8523437E+04
(15)	7P2P0.5	0.40997E+16	0.11194E+00	0.73986E-02	0.4594395E+04
(15)	7P2P1.5	0.41340E+16	0.22367E+00	0.14920E-01	0.4556500E+04
(15)	8P2P0.5	0.48427E+16	0.18558E-01	0.14601E-02	0.3889607E+04
(15)	8P2P1.5	0.48583E+16	0.37917E-01	0.26697E-02	0.3877204E+04
(15)	9P2P0.5	0.52059E+16	0.61601E-02	0.51099E-03	0.3618300E+04
(15)	9P2P1.5	0.52143E+16	0.12320E-01	0.10357E-02	0.3612461E+04
(15)	10P2P0.5	0.54112E+16	0.26892E-02	0.23459E-03	0.3481035E+04
(15)	10P2P1.5	0.54102E+16	0.53783E-02	0.46962E-03	0.3477785E+04
(15)	11P2P0.5	0.55386E+16	0.13937E-02	0.12445E-03	0.3400935E+04
(15)	11P2P1.5	0.55419E+16	0.27875E-02	0.24904E-03	0.3398921E+04
(15)	12P2P0.5	0.56232E+16	0.81552E-03	0.73931E-04	0.3349764E+04
(15)	12P2P1.5	0.56255E+16	0.16310E-02	0.14792E-03	0.3348433E+04
(15)	13P2P0.5	0.56822E+16	0.50967E-03	0.46689E-04	0.3314990E+04
(15)	13P2P1.5	0.56838E+16	0.10193E-02	0.93404E-04	0.3314055E+04
(15)	14P2P0.5	0.57250E+16	0.33895E-03	0.31204E-04	0.3290214E+04
(15)	14P2P1.5	0.57262E+16	0.67790E-03	0.62580E-04	0.3289529E+04
(15)	16P2P0.5	0.57816E+16	0.17083E-03	0.15923E-04	0.3257991E+04
(15)	16P2P1.5	0.57823E+16	0.34167E-03	0.31850E-04	0.3257592E+04

2 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(15)		6P2P0.5	11178.238	2.350	31406.711	62.331	30.630

INTERACTIONS -- DIPOLE --  
DESIGNATION

		#	RAA**2	F	# L VAC
(15)	6S2S0.5	0.21056E+16	0.96346E+01	0.32705E+00	0.8945953E+04
(15)	7S2S0.5	0.13859E+16	0.88764E+01	0.19832E+00	0.1359199E+05
(15)	6D2D1.5	0.21494E+16	0.79371E+01	0.27503E+00	0.8763738E+04
(15)	8S2S0.5	0.24749E+16	0.50573E+00	0.20178E-01	0.7010905E+04
(15)	7D2D1.5	0.23009E+16	0.17601E+01	0.80652E-01	0.6725117E+04
(15)	9S2S0.5	0.29634E+16	0.14840E+00	0.70899E-02	0.6350289E+04
(15)	8D2D1.5	0.31331E+16	0.69516E+00	0.35112E-01	0.6012137E+04
(15)	10S2S0.5	0.32252E+16	0.67467E-01	0.35079E-02	0.5840422E+04
(15)	9D2D1.5	0.33248E+16	0.34962E+00	0.18740E-01	0.5665508E+04
(15)	11S2S0.5	0.33815E+16	0.37271E-01	0.20318E-02	0.5570480E+04
(15)	10D2D1.5	0.34453E+16	0.20351E+00	0.11303E-01	0.5467375E+04
(15)	12S2S0.5	0.34824E+16	0.23023E-01	0.12926E-02	0.5408980E+04
(15)	11D2D1.5	0.35259E+16	0.13004E+00	0.73919E-02	0.5342336E+04
(15)	12D2D1.5	0.35626E+16	0.88737E-01	0.51250E-02	0.5257957E+04
(15)	13D2D1.5	0.36237E+16	0.63467E-01	0.37077E-02	0.5198094E+04
(15)	14D2D1.5	0.36547E+16	0.47131E-01	0.27769E-02	0.5154047E+04
(15)	15D2D1.5	0.36786E+16	0.36071E-01	0.21391E-02	0.5120621E+04

INTERACTIONS -- QUADRUPOLE --

0.36768E+16	0.17159E+04
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ORIGINAL PAGE IS  
OF POOR QUALITY

## 3 - SEQ. NUM.

PR (15)	EE	DESIG 6P2P1.5	LEVEL 117J2.352	N EFF 2.350	S. LIMIT 31406.711	RAA**2 62.331	S. RAA**2 30.630
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INTERACTIONS -- DIPOLE --  
DESIGNATION

			RAA**2	F	W L VAC
(15)	65250.5	0.22100E+16	0.96340E+01	0.68652E+00	0.8523437E+04
(15)	75250.5	0.12815E+16	0.88763E+01	0.18338E+00	0.1469905E+05
(15)	60201.5	0.20450E+16	0.79371E+00	0.26167E-01	0.9211035E+04
(15)	63202.5	0.20531E+16	0.71434E+01	0.23644E+00	0.9174750E+04
(15)	85250.5	0.23705E+16	0.50572E+00	0.19327E-01	0.7946075E+04
(15)	70201.5	0.26965E+16	0.17601E+00	0.77647E-02	0.6985430E+04
(15)	70202.5	0.27005E+16	0.16075E+01	0.69965E-01	0.6975211E+04
(15)	95250.5	0.28591E+16	0.14840E+00	0.68401E-02	0.6588340E+04
(15)	60201.5	0.30287E+16	0.69516E-01	0.33943E-02	0.6214328E+04
(15)	80202.5	0.30309E+16	0.62565E+00	0.30571E-01	0.6214812E+04
(15)	105250.5	0.31208E+16	0.67466E-01	0.33944E-02	0.6035754E+04
(15)	90201.5	0.32204E+16	0.34962E-01	0.18151E-02	0.5549133E+04
(15)	90202.5	0.32217E+16	0.31466E+00	0.16343E-01	0.5846684E+04
(15)	115250.5	0.32771E+16	0.37270E-01	0.19691E-02	0.5747902E+04
(15)	100201.5	0.33409E+16	0.20351E-01	0.10961E-02	0.5638187E+04
(15)	100202.5	0.33418E+16	0.18316E+00	0.98674E-02	0.5636699E+04
(15)	125250.5	0.33781E+16	0.23924E-01	0.12538E-02	0.5576109E+04
(15)	110201.5	0.34215E+16	0.13004E-01	0.71731E-03	0.5505305E+04
(15)	110202.5	0.34221E+16	0.11704E+00	0.64569E-02	0.5504320E+04
(15)	120201.5	0.34781E+16	0.88737E-02	0.49757E-03	0.5415746E+04
(15)	120202.5	0.34785E+16	0.79863E-01	0.44786E-02	0.5415062E+04
(15)	130201.5	0.35194E+16	0.63467E-02	0.36010E-03	0.5352254E+04
(15)	130202.5	0.35197E+16	0.57121E-01	0.32412E-02	0.5351766E+04
(15)	140201.5	0.35503E+16	0.47131E-02	0.26976E-03	0.5305570E+04
(15)	140202.5	0.35506E+16	0.42418E-01	0.24280E-02	0.5305195E+04
(15)	150201.5	0.35742E+16	0.36071E-02	0.20785E-03	0.5270156E+04
(15)	150202.5	0.35743E+16	0.32464E-01	0.18207E-02	0.5269922E+04

## INTERACTIONS -- QUADRUPOLE --

0.35724E+16	0.12531E+03
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ORIGINAL PAGE IS  
OF POOR QUALITY

4 - SEQ. NUM.

PR EE DESIG (1S)	LEVEL 7P2P1.5	N EFF 3.394	S. LIMIT 31406.711	RAA**2 302.892	S. RAA**2 296.202
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INTERACTIONS -- DIPOLE --  
DESIGNATION W

DESIGNATION	W	RAA**2	F	W L VAC
(1S) 6S2S0.5	0.41340E+16	0.11194E+00	0.14920E-01	0.4556500E+04
(1S) 7S2S0.5	0.64254E+15	0.49973E+02	0.10353E+01	0.293156E+05
(1S) 6D2D1.5	0.12097E+15	0.16494E+02	0.32168E-01	0.1557073E+06
(1S) 6D2D2.5	0.12906E+15	0.14845E+03	0.30886E+00	0.1459496E+06
(1S) 8S2S0.5	0.44652E+15	0.45912E+02	0.33050E+00	0.4218498E+05
(1S) 7D2D1.5	0.77252E+15	0.22761E+01	0.28347E-01	0.2438311E+05
(1S) 7D2D2.5	0.77647E+15	0.20485E+02	0.25642E+00	0.2425908E+05
(1S) 9S2S0.5	0.93505E+15	0.18974E+01	0.28603E-01	0.2014496E+05
(1S) 8D2D1.5	0.11047E+16	0.51156E+00	0.91105E-02	0.1705149E+05
(1S) 8D2D2.5	0.11069E+16	0.46040E+01	0.62157E-01	0.1701756E+05
(1S) 10S2S0.5	0.11968E+16	0.49638E+00	0.95772E-02	0.1573905E+05
(1S) 9D2D1.5	0.12964E+16	0.20201E+00	0.42220E-02	0.1453016E+05
(1S) 9D2D2.5	0.12977E+16	0.18181E+01	0.38037E-01	0.1451505E+05
(1S) 11S2S0.5	0.13531E+16	0.21137E+00	0.46108E-02	0.1392110E+05
(1S) 10D2D1.5	0.14169E+16	0.10321E+00	0.23576E-02	0.1329455E+05
(1S) 10D2D2.5	0.14177E+16	0.92893E+00	0.21232E-01	0.1328628E+05
(1S) 12S2S0.5	0.14541E+16	0.11230E+00	0.26325E-02	0.1295447E+05
(1S) 11D2D1.5	0.14975E+16	0.60937E-01	0.14711E-02	0.1257864E+05
(1S) 11D2D2.5	0.14981E+16	0.54843E+00	0.13246E-01	0.1257350E+05
(1S) 12D2D1.5	0.15541E+16	0.39503E-01	0.98971E-03	0.1212068E+05
(1S) 12D2D2.5	0.15545E+16	0.35553E+00	0.89099E-02	0.1211726E+05
(1S) 13D2D1.5	0.15953E+16	0.27262E-01	0.70115E-03	0.1180721E+05
(1S) 13D2D2.5	0.15957E+16	0.24536E+00	0.63116E-02	0.1180484E+05
(1S) 14D2D1.5	0.16263E+16	0.19742E-01	0.51762E-03	0.1158238E+05
(1S) 14D2D2.5	0.16266E+16	0.17768E+00	0.46593E-02	0.1158060E+05
(1S) 15D2D1.5	0.16502E+16	0.14844E-01	0.39488E-03	0.1141494E+05
(1S) 15D2D2.5	0.16503E+16	0.13359E+00	0.35543E-02	0.1141383E+05

INTERACTIONS -- QUADRUPOLE --

0.19240E+16	0.14659E+05
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ORIGINAL PAGE IS  
OF POOR QUALITY



PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		6D201.5	22588.891	3.532	31406.711	282.561	274.339

INTERACTIONS -- DIPOLE -  
DESIGNATION

		#	RAA**2	F	W L VAC
(15)	6P2P0.5	0.21494E+16	0.39685E+01	0.27503E+00	0.8763738E+04
(15)	6P2P1.5	0.20450E+16	0.79371E+00	0.26167E-01	0.9211035E+04
(15)	7P2P0.5	0.15507E+15	0.82470E+02	0.41234E+00	0.1214709E+06
(15)	7P2P1.5	0.12097E+15	0.16494E+02	0.32168E-01	0.1557073E+06
(15)	4F2F2.5	0.35477E+15	0.15485E+03	0.88566E+00	0.5309551E+05
(15)	8P2P0.5	0.58775E+15	0.49536E+01	0.46937E-01	0.3204871E+05
(15)	8P2P1.5	0.60331E+15	0.99073E+00	0.96361E-02	0.3122179E+05
(15)	5F2F2.5	0.82552E+15	0.38486E+01	0.51219E-01	0.2281786E+05
(15)	9P2P0.5	0.95094E+15	0.49038E+00	0.75177E-02	0.1980826E+05
(15)	9P2P1.5	0.95936E+15	0.98075E-01	0.15169E-02	0.1963452E+05
(15)	6F2F2.5	0.10814E+16	0.21168E+01	0.36902E-01	0.1741927E+05
(15)	10P2P0.5	0.11562E+16	0.14296E+00	0.26647E-02	0.1629142E+05
(15)	10P2P1.5	0.11613E+16	0.28592E-01	0.53528E-03	0.1622050E+05
(15)	7F2F2.5	0.12355E+16	0.11382E+01	0.22672E-01	0.1524560E+05
(15)	11P2P0.5	0.12837E+16	0.62956E-01	0.13028E-02	0.1467396E+05
(15)	11P2P1.5	0.12870E+16	0.12591E-01	0.26123E-03	0.1463655E+05
(15)	8F2F2.5	0.13355E+16	0.67747E+00	0.14586E-01	0.1410427E+05
(15)	12P2P0.5	0.13683E+16	0.34274E-01	0.75603E-03	0.1376659E+05
(15)	12P2P1.5	0.13705E+16	0.68546E-02	0.15145E-03	0.1374414E+05
(15)	9F2F2.5	0.14040E+16	0.43724E+00	0.98967E-02	0.1341628E+05
(15)	13P2P0.5	0.14273E+16	0.21310E-01	0.49032E-03	0.1319764E+05
(15)	13P2P1.5	0.14289E+16	0.42619E-02	0.98175E-04	0.1318284E+05
(15)	10F2F2.5	0.14530E+16	0.29970E+00	0.70200E-02	0.1296430E+05
(15)	14P2P0.5	0.14701E+16	0.14406E-01	0.34141E-03	0.1281350E+05
(15)	14P2P1.5	0.14712E+16	0.28812E-02	0.68338E-04	0.1280312E+05
(15)	11F2F2.5	0.14892E+16	0.21454E+00	0.51506E-02	0.1264910E+05
(15)	12F2F2.5	0.15167E+16	0.15776E+00	0.38574E-02	0.1241921E+05
(15)	16P2P0.5	0.15267E+16	0.77312E-02	0.19028E-03	0.1233820E+05
(15)	16P2P1.5	0.15274E+16	0.15463E-02	0.38074E-04	0.1233254E+05

6 - SEQ. NUM.

PR EE DESIG (1S)	LEVEL 85250.5	N EFF 3.933	S. LIMIT 31406.711	RAA**2 606.083	S. RAA**2 597.049
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INTERACTIONS -- DIPOLE --  
DESIGNATION W

RAA\*\*2

F

W L VAC

(1S)	6P2P0.5	0.24749E+16	0.50573E+00	0.20178E-01	0.7610965E+04
(1S)	6P2P1.5	0.23705E+16	0.10114E+01	0.19327E-01	0.7946078E+04
(1S)	7P2P0.5	0.48062E+15	0.45913E+02	0.35574E+00	0.3919227E+05
(1S)	7P2P1.5	0.44052E+15	0.91825E+02	0.33050E+00	0.4218498E+05
(1S)	8P2P0.5	0.26220E+15	0.15017E+03	0.63479E+00	0.7184069E+05
(1S)	8P2P1.5	0.27776E+15	0.30035E+03	0.13450E+01	0.6761456E+05
(1S)	9P2P0.5	0.62539E+15	0.19213E+01	0.19371E-01	0.3011942E+05
(1S)	9P2P1.5	0.63331E+15	0.38426E+01	0.39263E-01	0.2971954E+05
(1S)	10P2P0.5	0.83067E+15	0.31231E+00	0.41624E-02	0.2267616E+05
(1S)	10P2P1.5	0.83573E+15	0.62462E+00	0.84136E-02	0.2253898E+05
(1S)	11P2P0.5	0.95812E+15	0.10101E+00	0.15602E-02	0.1965985E+05
(1S)	11P2P1.5	0.96140E+15	0.20201E+00	0.31311E-02	0.1959275E+05
(1S)	12P2P0.5	0.10427E+16	0.45127E-01	0.75859E-03	0.1806463E+05
(1S)	12P2P1.5	0.10450E+16	0.90253E-01	0.15204E-02	0.1802598E+05
(1S)	13P2P0.5	0.11017E+16	0.23924E-01	0.42492E-03	0.1709744E+05
(1S)	13P2P1.5	0.11033E+16	0.47848E-01	0.85107E-03	0.1707259E+05
(1S)	14P2P0.5	0.11445E+16	0.14263E-01	0.26316E-03	0.1645823E+05
(1S)	14P2P1.5	0.11457E+16	0.28525E-01	0.52687E-03	0.1644110E+05
(1S)	16P2P0.5	0.12011E+16	0.63149E-02	0.12228E-03	0.1568236E+05
(1S)	16P2P1.5	0.12018E+16	0.12630E-01	0.24471E-03	0.1567312E+05

ORIGINAL PAGE IS  
OF GOOD QUALITY

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S)		7D2D1.5	26047.859	4.529	31406.711	877.543	868.973

INTERACTIONS -- DIPOLE --					
DESIGNATION	#	RAA**2	F	W L VAC	
(1S)	6P2P0.5	0.28009E+16	0.89307E+00	0.80652E-01	0.6725117E+04
(1S)	6P2P1.5	0.26965E+16	0.17861E+00	0.77647E-02	0.6985430E+04
(1S)	7P2P0.5	0.80662E+15	0.11380E+02	0.29598E+00	0.2335242E+05
(1S)	7P2P1.5	0.77252E+15	0.22761E+01	0.28347E-01	0.2438311E+05
(1S)	4F2F2.5	0.29678E+15	0.40797E+02	0.13013E+00	0.6346908E+05
(1S)	8P2P0.5	0.63803E+14	0.25669E+03	0.52806E+00	0.2952301E+06
(1S)	8P2P1.5	0.48236E+14	0.51338E+02	0.39922E-01	0.3905058E+06
(1S)	5F2F2.5	0.17397E+15	0.47654E+03	0.13365E+01	0.1082764E+06
(1S)	9P2P0.5	0.29939E+15	0.17435E+02	0.84153E-01	0.6291565E+05
(1S)	9P2P1.5	0.30781E+15	0.34870E+01	0.17304E-01	0.6119570E+05
(1S)	6F2F2.5	0.42981E+15	0.89187E+00	0.61799E-02	0.4382504E+05
(1S)	10P2P0.5	0.50467E+15	0.18477E+01	0.15033E-01	0.3732415E+05
(1S)	10P2P1.5	0.50973E+15	0.36953E+00	0.30367E-02	0.3695395E+05
(1S)	7F2F2.5	0.58399E+15	0.12833E+01	0.12082E-01	0.3225493E+05
(1S)	11P2P0.5	0.63212E+15	0.55377E+00	0.56433E-02	0.2979897E+05
(1S)	11P2P1.5	0.63340E+15	0.11075E+00	0.11345E-02	0.2964507E+05
(1S)	8F2F2.5	0.68397E+15	0.86017E+00	0.94848E-02	0.2754000E+05
(1S)	12P2P0.5	0.71673E+15	0.24621E+00	0.28449E-02	0.2628126E+05
(1S)	12P2P1.5	0.71696E+15	0.49242E-01	0.57075E-03	0.2619955E+05
(1S)	9F2F2.5	0.75245E+15	0.56860E+00	0.68975E-02	0.2503342E+05
(1S)	13P2P0.5	0.77571E+15	0.13492E+00	0.16873E-02	0.2428280E+05
(1S)	13P2P1.5	0.77732E+15	0.26984E-01	0.33815E-03	0.2423271E+05
(1S)	10F2F2.5	0.80140E+15	0.39094E+00	0.50509E-02	0.2350441E+05
(1S)	14P2P0.5	0.81850E+15	0.83699E-01	0.11045E-02	0.2301336E+05
(1S)	14P2P1.5	0.81970E+15	0.16740E-01	0.22121E-03	0.2297990E+05
(1S)	11F2F2.5	0.83761E+15	0.27853E+00	0.37611E-02	0.2248843E+05
(1S)	12F2F2.5	0.86517E+15	0.20165E+00	0.28126E-02	0.2177193E+05
(1S)	16P2P0.5	0.87513E+15	0.40251E-01	0.56788E-03	0.2152434E+05
(1S)	16P2P1.5	0.87583E+15	0.80503E-02	0.11367E-03	0.2150695E+05

8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(15)		95250.5	26910.680	4.939	31406.711	1499.951	1468.684

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	# L VAC
(15)	6P2P0.5	0.29634E+16	0.14840E+00	0.70899E-02	0.6356289E+04
(15)	6P2P1.5	0.28591E+16	0.29680E+00	0.68401E-02	0.6588340E+04
(15)	7P2P0.5	0.90914E+15	0.18974E+01	0.29646E-01	0.1943623E+05
(15)	7P2P1.5	0.93505E+15	0.37949E+01	0.28603E-01	0.2014496E+05
(15)	8P2P0.5	0.22033E+15	0.13793E+03	0.50326E+00	0.8322656E+05
(15)	8P2P1.5	0.21076E+15	0.27585E+03	0.46865E+00	0.6937356E+05
(15)	9P2P0.5	0.13687E+15	0.35038E+03	0.77311E+00	0.1376255E+06
(15)	9P2P1.5	0.14528E+15	0.70075E+03	0.16413E+01	0.1296544E+06
(15)	10P2P0.5	0.34215E+15	0.47155E+01	0.26010E-01	0.5505364E+05
(15)	10P2P1.5	0.34720E+15	0.94310E+01	0.52769E-01	0.5425200E+05
(15)	11P2P0.5	0.46959E+15	0.77739E+00	0.58853E-02	0.4011231E+05
(15)	11P2P1.5	0.47288E+15	0.15548E+01	0.11853E-01	0.3983394E+05
(15)	12P2P0.5	0.55420E+15	0.25505E+00	0.22788E-02	0.3398850E+05
(15)	12P2P1.5	0.55044E+15	0.51011E+00	0.45759E-02	0.3385195E+05
(15)	13P2P0.5	0.61319E+15	0.11398E+00	0.11268E-02	0.3071894E+05
(15)	13P2P1.5	0.61479E+15	0.22796E+00	0.22594E-02	0.3063883E+05
(15)	14P2P0.5	0.65598E+15	0.61083E-01	0.64598E-03	0.2871516E+05
(15)	14P2P1.5	0.65717E+15	0.12217E+00	0.12943E-02	0.2866308E+05
(15)	16P2P0.5	0.71260E+15	0.23955E-01	0.27520E-03	0.2643347E+05
(15)	16P2P1.5	0.71331E+15	0.47910E-01	0.55094E-03	0.2640724E+05

B - 230

ORIGINAL PAGE IS  
OF POOR QUALITY

## 9 - SEQ. NUM.

PR EE DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(1S) 9D2D1.5	28828.898	6.528	31406.711	4178.434	4167.852

INTERACTIONS -- DIPOLE --  
DESIGNATION

	W	RAA**2	F	W L VAC
(1S) 6P2P0.5	0.33248E+16	0.17481E+00	0.18740E-01	0.5665508E+04
(1S) 6P2P1.5	0.32204E+16	0.34962E-01	0.18151E-02	0.5849133E+04
(1S) 7P2P0.5	0.13305E+16	0.10101E+01	0.43330E-01	0.1415779E+05
(1S) 7P2P1.5	0.12964E+16	0.20201E+00	0.42220E-02	0.1453018E+05
(1S) 4F2F2.5	0.82063E+15	0.32755E+00	0.28889E-02	0.2295363E+05
(1S) 8P2P0.5	0.58765E+15	0.51696E+01	0.98330E-01	0.3205377E+05
(1S) 8P2P1.5	0.57209E+15	0.10379E+01	0.95725E-02	0.3292596E+05
(1S) 5F2F2.5	0.34988E+15	0.61437E+01	0.23103E-01	0.5383648E+05
(1S) 9P2P0.5	0.22446E+15	0.42656E+02	0.30871E+00	0.8392606E+05
(1S) 9P2P1.5	0.21604E+15	0.85312E+01	0.29713E-01	0.8718869E+05
(1S) 6F2F2.5	0.94039E+14	0.43043E+03	0.43803E+00	0.2003091E+06
(1S) 10P2P0.5	0.19177E+14	0.12291E+04	0.75929E+00	0.9822353E+06
(1S) 10P2P1.5	0.14121E+14	0.24582E+03	0.55963E-01	0.1333869E+07
(1S) 7F2F2.5	0.60138E+14	0.20655E+04	0.20025E+01	0.3132226E+06
(1S) 11P2P0.5	0.10827E+15	0.93174E+02	0.16263E+00	0.1739792E+06
(1S) 11P2P1.5	0.11155E+15	0.18635E+02	0.33512E-01	0.1688609E+06
(1S) 8F2F2.5	0.16012E+15	0.14506E+01	0.37444E-02	0.1176411E+06
(1S) 12P2P0.5	0.19288E+15	0.98744E+01	0.30704E-01	0.9766069E+05
(1S) 12P2P1.5	0.19511E+15	0.19749E+01	0.62120E-02	0.9654181E+05
(1S) 9F2F2.5	0.22860E+15	0.16601E+00	0.61183E-03	0.8239800E+05
(1S) 13P2P0.5	0.25186E+15	0.29200E+01	0.11857E-01	0.7478862E+05
(1S) 13P2P1.5	0.25347E+15	0.56401E+00	0.23964E-02	0.7431550E+05
(1S) 10F2F2.5	0.27755E+15	0.33601E+00	0.15124E-02	0.6786650E+05
(1S) 14P2P0.5	0.29465E+15	0.12804E+01	0.60823E-02	0.6592792E+05
(1S) 14P2P1.5	0.29584E+15	0.25609E+00	0.12214E-02	0.6367034E+05
(1S) 11F2F2.5	0.31376E+15	0.30940E+00	0.15650E-02	0.6003513E+05
(1S) 12F2F2.5	0.34132E+15	0.23761E+00	0.13086E-02	0.5518668E+05
(1S) 16P2P0.5	0.35128E+15	0.42305E+00	0.23958E-02	0.5362323E+05
(1S) 16P2P1.5	0.35198E+15	0.84611E-01	0.48012E-03	0.5351539E+05

BARIIUM ----- 56 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	42032.398
	2	(2D)	47985.000

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2S) 5D3D1.0	9033.98	9215.52	9596.35
2	(2S) 5D1D2.0	11395.39		
3	(2S) 6P3P0.0	12266.02	12636.62	13514.74
4	(2S) 6P1P1.0	18060.27		
5	(2D) 6P3F2.0	22064.66	22947.44	23757.08
6	(2D) 6P1D2.0	23074.41		
7	(2D) 6P3D1.0	24192.06	24531.54	24979.86
8	(2D) 6P3P0.0	25642.16	25704.14	25956.55
9	(2S) 7S3S1.0	26160.29		
10	(2D) 6P1F3.0	26816.29		
11	(2S) 7S1S0.0	28230.08		
12	(2D) 6P1P1.0	28554.26		
13	(2S) 6D1D2.0	30236.82		
14	(2S) 6D3D1.0	30695.59	30750.67	30810.11
15	(2S) 7P3P0.0	30743.53	30815.56	30987.28
16	(2S) 7P1P1.0	32547.07		
17	(2D) 7S3D1.0	32804.92	32943.60	33526.41
18	(2D) 7S1D2.0	33795.84		
19	(2S) 8S3S1.0	33905.35		
20	(2S) 4F3F2.0	34602.80	34616.68	34630.81
21	(2S) 4F1F3.0	34730.42		
22	(2S) 7D3D1.0	35709.31	35762.21	35785.30
23	(2S) 8P1P1.0	35892.52		
24	(2D) 6D3G3.0	35894.28	36348.98	36837.50
25	(2D) 6D3D1.0	35933.82	36200.42	36628.87
26	(2D) 6D1F3.0	36165.71		
27	(2D) 7P3F2.0	36234.86	36511.27	37132.09
28	(2D) 6D3S1.0	36446.58		
29	(2D) 7P3D1.0	36495.77	37063.31	37540.24
30	(2D) 6D1P1.0	36902.55		
31	(2D) 7P3P0.0	36908.01	36990.02	37282.08
32	(2S) 8S1S0.0	37041.00		
33	(2D) 7P1D2.0	37077.50		
34	(2D) 6D3F2.0	37088.94	37504.02	37732.23
35	(2S) 9S3S1.0	37095.49		
36	(2S) 5F1F3.0	37282.18		
37	(2S) 5F3F2.0	37344.93	37418.97	37524.18
38	(2S) 7D1D2.0	37434.96		
39	(2D) 6D3P0.0	37675.94	38023.22	38267.57
40	(2D) 7P1F3.0	37739.95		
41	(2S) 9P1P1.0	37774.50		
42	(2D) 6D1D2.0	37837.40		
43	(2S) 8D3D1.0	37961.92	37974.19	37988.48
44	(2D) 6D1G4.0	38177.10		

Table 22. Barium

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
45	(25) 9S1S0.0	38267.59		
46	(20) 7P1P1.0	38499.85		
47	(25) 8D1D2.0	38556.18		
48	(25) 10S3S1.0	38662.91		
49	(25) 6F3F2.0	38815.73	38818.42	38825.27
50	(25) 6F1F3.0	38884.00		
51	(25) 9D3D1.0	39140.70	39157.89	39185.75
52	(25) 10P1P1.0	39308.74		
53	(25) 9D1D2.0	39334.94		
54	(25) 11S3S1.0	39624.69		
55	(25) 7F3F2.0	39678.06	39680.62	39683.92
56	(25) 7F1F3.0	39705.11		
57	(20) 4F3F2.0	39765.31	39765.31	39765.31
58	(25) 10D3D1.0	39892.19	39894.53	39905.15
59	(25) 11P1P1.0	39984.75		
60	(25) 8F3F2.0	40238.91	40241.37	40244.02
61	(25) 8F1F3.0	40257.63		
62	(25) 11D3D1.0	40380.32	40380.32	40382.68
63	(25) 12P1P1.0	40421.23		
64	(25) 9F1F3.0	40614.15		
65	(25) 9F3F2.0	40614.16	40621.80	40627.78
66	(25) 10F3F2.0	40895.27	40898.69	40897.07
67	(25) 11F3F2.0	41096.50	41096.88	41100.25
68	(25) 12F3F2.0	41247.58	41247.04	41250.56
69	(25) 13F3F2.0	41364.65	41364.36	41364.65
70	(25) 14F3F2.0	41456.78	41456.78	41456.78

1 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	503D1.0	9596.551	1.832	42032.398	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC.

2 - SEQ. NUM.

PR FF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	501D2.0	11395.383	1.897	42032.398	0.0	0.0

INTERACTIONS -- DIPOLE -  
DESIGNATION W

RAA\*\*2

F

# L VAC

## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		6P3P0.0	12266.020	1.946	42032.398	25.408	12.835

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	75351.0	0.26172E+15	0.23659E+01	0.99824E-01	0.7197211E+04
(25)	60301.0	0.34715E+16	0.77002E+01	0.43093E+00	0.5426059E+04
(25)	85351.0	0.40761E+16	0.17743E+00	0.11659E-01	0.4621215E+04
(25)	70301.0	0.44159E+16	0.13801E+01	0.98247E-01	0.4265609E+04
(25)	95351.0	0.46773E+16	0.49493E-01	0.37318E-02	0.4027472E+04
(25)	80301.0	0.48402E+16	0.54176E+00	0.42275E-01	0.3891672E+04
(25)	105351.0	0.49723E+16	0.22788E-01	0.18267E-02	0.3748325E+04
(25)	90301.0	0.50623E+16	0.29203E+00	0.23833E-01	0.3720974E+04
(25)	115351.0	0.51534E+16	0.11063E-01	0.91915E-03	0.3655148E+04
(25)	100301.0	0.52038E+16	0.17769E+00	0.14907E-01	0.3619755E+04
(25)	110301.0	0.52958E+16	0.11649E+00	0.99451E-02	0.3556908E+04

## INTERACTIONS -- QUADRUPOLE -

0.35264E+15	0.17248E+03
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## 4 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		6P3P1.0	12636.617	1.946	42032.398	25.408	12.835

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	75351.0	0.25474E+16	0.23658E+01	0.97159E-01	0.7394441E+04
(25)	60301.0	0.34017E+16	0.19250E+01	0.10557E+00	0.5527410E+04
(25)	60302.0	0.34121E+16	0.57751E+01	0.31767E+00	0.5520574E+04
(25)	85351.0	0.40063E+16	0.17742E+00	0.11459E-01	0.4701734E+04
(25)	70301.0	0.43461E+16	0.34501E+00	0.24173E-01	0.4334125E+04
(25)	70302.0	0.43561E+16	0.10350E+01	0.72685E-01	0.4324211E+04
(25)	95351.0	0.46072E+16	0.49492E-01	0.36760E-02	0.4088405E+04
(25)	80301.0	0.47704E+16	0.13544E+00	0.10415E-01	0.3948620E+04
(25)	80302.0	0.47727E+16	0.40632E+00	0.31263E-01	0.3946709E+04
(25)	105351.0	0.49024E+16	0.22789E-01	0.18010E-02	0.3842268E+04
(25)	90301.0	0.49924E+16	0.73007E-01	0.58760E-02	0.3773004E+04
(25)	90302.0	0.49957E+16	0.21902E+00	0.17639E-01	0.3770558E+04
(25)	115351.0	0.50836E+16	0.11063E-01	0.90668E-03	0.3705340E+04
(25)	100301.0	0.51340E+16	0.44421E-01	0.36765E-02	0.3658974E+04
(25)	100302.0	0.51344E+16	0.13326E+00	0.11031E-01	0.3668659E+04
(25)	110301.0	0.52259E+16	0.29122E-01	0.24535E-02	0.3604421E+04
(25)	110302.0	0.52259E+16	0.87364E-01	0.73604E-02	0.3604421E+04

## INTERACTIONS -- QUADRUPOLE -

0.34566E+16	0.62539E+03
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## 5 - SEQ. NUM.

PR FE	DESIG	LEVFL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)	6P3P2.0	13514.738	1.946	42032.398	25.408	12.835

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA***2	F	W L VAC
(2S) 753S1.0	0.23820E+16	0.23659F+01	0.90852F-01
(2S) 6D3D1.0	0.32163E+16	0.77003E-01	0.40175F-02
(2S) 6D3D2.0	0.32466E+16	0.11550E+01	0.60455F-01
(2S) 6D3D3.0	0.32594E+16	0.64682E+01	0.33987E+00
(2S) 853S1.0	0.38409E+16	0.17743E+00	0.10985F-01
(2S) 7D3D1.0	0.41807E+16	0.13801E-01	0.93014F-03
(2S) 7D3D2.0	0.41906E+16	0.20701E+00	0.13985F-01
(2S) 7D3D3.0	0.41950E+16	0.11592E+01	0.78399F-01
(2S) 953S1.0	0.44119E+16	0.49493E-01	0.35441E-02
(2S) 8D3D1.0	0.46050E+16	0.54177E-02	0.40220F-03
(2S) 8D3D2.0	0.46073E+16	0.81264E-01	0.60360E-02
(2S) 8D3D3.0	0.46100E+16	0.45508E+00	0.33822E-01
(2S) 1053S1.0	0.47370E+16	0.22788E-01	0.17403E-02
(2S) 9D3D1.0	0.48270E+16	0.29203E-02	0.22725E-03
(2S) 9D3D2.0	0.49303E+16	0.43804E-01	0.34111E-02
(2S) 9D3D3.0	0.49355E+16	0.24531E+00	0.19123E-01
(2S) 1153S1.0	0.49182E+16	0.11063E-01	0.87719E-03
(2S) 10D3D1.0	0.49686E+16	0.17760E-02	0.14233F-03
(2S) 10D3D2.0	0.49690E+16	0.26653E-01	0.21351E-02
(2S) 10D3D3.0	0.49710E+16	0.14926E+00	0.11961E-01
(2S) 11D3D1.0	0.50605E+16	0.11649F-02	0.95034E-04
(2S) 11D3D2.0	0.50605E+16	0.17473F-01	0.14255F-02
(2S) 11D3D3.0	0.50610E+16	0.97849E-01	0.79835E-02

## INTERACTIONS -- QUADRUPOLE -

0.32912E+16	0.12610E+03
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## 6 - SEQ. NUM.

PR FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)	6P1P1.0	18060.266	2.139	42032.398	40.877	25.988

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA***2	F	W L VAC
(2S) 751S0.0	0.19156E+16	0.38828E+01	0.11991E+00
(2S) 6D1D2.0	0.22936E+16	0.21388E+02	0.79086E+00
(2S) 851S0.0	0.35753E+16	0.84297E-01	0.48589E-02
(2S) 7D1D2.0	0.36495E+16	0.21502E+00	0.12651E-01
(2S) 951S0.0	0.38064E+16	0.90142E-03	0.55331E-04
(2S) 8D1D2.0	0.38607E+16	0.11175E+00	0.69552E-02
(2S) 9D1D2.0	0.40074E+16	0.30568E+00	0.19749E-01

7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2D)		6P3F3.0	22947.437	2.099	47985.000	37.482	19.971

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(2D)	753D2.0	0.18829F+16	0.38699E+01	0.11747E+00	0.1030384E+05
(2D)	753D1.0	0.19927E+16	0.48375E+00	0.15541E-01	0.9452711E+04
(2D)	6D3G3.0	0.24387E+16	0.82462E+00	0.32420E-01	0.7723887E+04
(2D)	6D3G4.0	0.25244E+16	0.12369E+02	0.50338E+00	0.7461824E+04
(2D)	6D3D2.0	0.24964E+16	0.44831E+00	0.18043E-01	0.7545469E+04
(2D)	6D3D1.0	0.25771E+16	0.56040E-01	0.23283E-02	0.7309172E+04
(2D)	6D3F2.0	0.26637E+16	0.15234E+00	0.65419F-02	0.7071430F+04
(2D)	6D3F1.0	0.27420E+16	0.16128E+01	0.71293F-01	0.6869742E+04
(2D)	6D3F4.0	0.27849E+16	0.15424E+00	0.69253E-02	0.6763703F+04

INTERACTIONS -- QUADRUPOLE -

0.25550E+16	0.62487E+03
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8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2D)		6P1D2.0	23074.414	2.098	47985.000	37.448	17.806

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA***2	F	W L VAC
(2D)	751D2.0	0.20195E+16	0.34807E+01	0.11332E+00	0.9327117E+04
(2D)	6D1F3.0	0.24659E+16	0.10525E+02	0.41841E+00	0.7636895E+04
(2D)	6D1P1.0	0.26047E+16	0.12442E+01	0.52247E-01	0.7231629F+04
(2D)	6D1D2.0	0.27808E+16	0.25563E+01	0.11460E+00	0.6773695E+04

## 9 - SEQ. NUM.

PR FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)	6P3F4.0	23757.078	2.099	47985.000	37.482	19.971

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA**2	F	W L VAC
(20) 753D3.0	0.19402E+16	0.43538E+01	0.12915E+00
(20) 6D3G3.0	0.22862E+16	0.10181E-01	0.37523E-03
(20) 6D3G4.0	0.23719E+16	0.64137E+00	0.24525E-01
(20) 6D3G5.0	0.24633E+16	0.12542E+02	0.49820E+00
(20) 6D3D3.0	0.24246E+16	0.50436E+00	0.19714E-01
(20) 6D3F3.0	0.25894E+16	0.11997E+00	0.50080E-02
(20) 6D3F4.0	0.26324E+16	0.17995E+01	0.76367E-01

## INTERACTIONS -- QUADRUPOLE -

0.24024E+16	0.10171E+04
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## 10 - SEQ. NUM.

PR FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)	6P3P0.0	25642.156	2.225	47985.000	49.882	28.224

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA**2	F	W L VAC
(20) 753D1.0	0.15492E+16	0.85091E+01	0.18508E+00
(20) 6D3D1.0	0.19386E+16	0.93826E+01	0.29323E+00
(20) 6D3S1.0	0.20352E+16	0.52171E+01	0.17117E+00
(20) 6D3P1.0	0.23322E+16	0.51155E+01	0.19233E+00

## INTERACTIONS -- QUADRUPOLE -

0.21926E+16	0.32635E+02
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## 11 - SEQ. NUM.

PR FE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)	7P3P1.0	26160.285	2.629	42032.398	122.841	106.224

INTERACTIONS -- DIPOLE -  
DESIGNATION W

	RAA**2	F	W L VAC
(25) 6P3P0.0	0.26172E+16	0.78863E+00	0.99824E-01
(25) 6P3P1.0	0.25474E+16	0.23658E+01	0.97159E-01
(25) 6P3P2.0	0.23820E+16	0.39431E+01	0.90852E-01
(25) 7P3P0.0	0.86332E+15	0.11014E+02	0.15330E+00
(25) 7P3P1.0	0.87689E+15	0.33042E+02	0.46710E+00
(25) 7P3P2.0	0.90924E+15	0.55071E+02	0.80724E+00

## 12 - SEQ. NUM.

PR	FF	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		7S150.0	2R230.078	2.819	42032.398	161.842	125.569

INTERACTIONS --		DIPOLE -			
DESIGNATION		W	RAA***2	F	W L VAC
(2S)	6P1P1.0	0.19156E+16	0.11648E+02	0.11991E+00	0.9833020E+04
(2S)	7P1P1.0	0.81317E+15	0.11288E+03	0.14798E+01	0.2316425E+05
(2S)	8P1P1.0	0.14433E+16	0.27430E+00	0.63825E-02	0.1305067E+05
(2S)	9P1P1.0	0.17978E+16	0.59290E+00	0.17184E-01	0.1047732E+05
(2S)	10P1P1.0	0.20868E+15	0.13498E+00	0.45410E-02	0.9026359E+04
(2S)	11P1P1.0	0.22142E+16	0.35254E-01	0.12584E-02	0.8507254E+04
(2S)	12P1P1.0	0.22964E+16	0.13988E-03	0.51785E-05	0.8202668E+04

## 13 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(2S)		6D1D2.0	2R236.816	3.049	42032.398	135.970	133.375

INTERACTIONS --		DIPOLF -			
DESIGNATION		W	RAA***2	F	W L VAC
(2S)	6P1P1.0	0.22036E+15	0.12833E+02	0.79086E+00	0.8212504E+04
(2S)	7P1P1.0	0.43517E+15	0.28060E+02	0.19685E+00	0.4328521E+05
(2S)	4F1F3.0	0.94757E+15	0.89038E+02	0.12166E+01	0.2222417E+05
(2S)	8P1P1.0	0.10653E+16	0.61695E-03	0.10595E-04	0.1768127E+05
(2S)	5F1F3.0	0.13271E+16	0.21055E+01	0.45047E-01	0.1419374E+05
(2S)	9P1P1.0	0.14198E+16	0.74986E-01	0.17164E-02	0.1326667E+05
(2S)	6F1F3.0	0.16288E+16	0.92614E+00	0.24319E-01	0.1156446E+05
(2S)	10P1P1.0	0.17083E+16	0.16676E-01	0.45941E-03	0.1102302E+05
(2S)	7F1F3.0	0.17835E+16	0.21713E+00	0.62430E-02	0.1056156E+05
(2S)	11P1P1.0	0.18362E+16	0.55274E-02	0.16362E-03	0.1025858E+05
(2S)	8F1F3.0	0.18876E+16	0.90953E-01	0.27677E-02	0.9979230E+04
(2S)	12P1P1.0	0.19184E+16	0.39147E-03	0.12107E-04	0.9818922E+04
(2S)	9F1F3.0	0.19547E+16	0.65709E-02	0.20707E-03	0.9636387E+04

## INTERACTIONS -- QUADRUPOLE -

0.17138E+16	0.57956E+03
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## 14 - SEQ. NUM.

PP	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		6D3D1.0	30695.594	3.121	42032.398	153.998	161.530

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA**2	F	# L VAC
(2S)	6P3P0.0	0.34715E+16	0.25667E+01	0.43094E+00	0.5426059E+04
(2S)	6P3P1.0	0.34017E+16	0.19250E+01	0.10557E+00	0.5537410E+04
(2S)	6P3P2.0	0.32363E+15	0.12834E+00	0.40175E-02	0.5620430E+04
(2S)	7P3P0.0	0.90299E+13	0.27822E+02	0.40502E-02	0.2086049E+07
(2S)	7P3P1.0	0.22598E+14	0.20867E+02	0.76019E-02	0.8335504E+06
(2S)	7P3P2.0	0.54943E+14	0.13911E+01	0.12322E-02	0.3428372E+06
(2S)	4F3F2.0	0.73594E+15	0.10380E+03	0.12315E+01	0.2559373E+05
(2S)	5F3F2.0	0.12619E+16	0.28510E+01	0.58001E-01	0.1492686E+05
(2S)	6F3F2.0	0.15296E+16	0.15795E+00	0.38949E-02	0.1231505E+05
(2S)	7F3F2.0	0.16920E+16	0.14924E-01	0.40708E-03	0.1113280E+05
(2S)	8F3F2.0	0.17976E+16	0.17540E-02	0.50830E-04	0.1047854E+05
(2S)	9F3F2.0	0.18683E+16	0.17141E-05	0.51629E-07	0.1008210E+05
(2S)	10F3F2.0	0.19213E+16	0.96738E-05	0.29963E-06	0.9804230E+04
(2S)	11F3F2.0	0.19592E+16	0.19996E-04	0.63157E-06	0.9614543E+04
(2S)	12F3F2.0	0.19876E+16	0.59887E-04	0.19190E-05	0.9476887E+04
(2S)	13F3F2.0	0.20097E+16	0.65980E-03	0.21377E-04	0.9372898E+04
(2S)	14F3F2.0	0.20270E+16	0.12753E-02	0.41674E-04	0.9292652E+04

## INTERACTIONS -- QUADRUPOLE -

0.18243E+16	0.22783E+05
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## 15 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. PAA**2
(2S)		6D3D3.0	70818.109	7.121	42032.398	153.998	161.530

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	L VAC
(2S)	6P3P2.0	0.32594E+16	0.46201E+01	0.33987E+00	0.5779219F+04
(2S)	7P3P2.0	0.31865E+14	0.50080F+02	0.25727E-01	0.5911284E+06
(2S)	4F3F2.0	0.71250E+15	0.23538E+00	0.27052E-02	0.2642223E+05
(2S)	4F3F3.0	0.71552E+15	0.82382E+01	0.95029F-01	0.2632566E+05
(2S)	4F3F4.0	0.71818E+15	0.95328E+02	0.11037E+01	0.2622814F+05
(2S)	5F3F2.0	0.12389E+16	0.64649F-02	0.12912E-03	0.1520492E+05
(2S)	5F3F3.0	0.12434E+16	0.22627E+00	0.45355E-02	0.1514954F+05
(2S)	5F3F4.0	0.12632E+16	0.26183F+01	0.53320F-01	0.1491185E+05
(2S)	6F3F2.0	0.15065E+16	0.35816E-03	0.86984E-05	0.1250371F+05
(2S)	6F3F3.0	0.15070E+16	0.12535F-01	0.30454E-03	0.1249252E+05
(2S)	6F3F4.0	0.15083F+16	0.14505E+00	0.35270E-02	0.1248883F+05
(2S)	7F3F2.0	0.16687E+16	0.33841F-04	0.91050F-06	0.1128675F+05
(2S)	7F3F3.0	0.16694E+16	0.11844E-02	0.31876F-04	0.1124348E+05
(2S)	7F3F4.0	0.16698E+16	0.13706E-01	0.36895E-03	0.1128043F+05
(2S)	8F3F2.0	0.17746E+16	0.39773E-05	0.11378E-06	0.1051481E+05
(2S)	8F3F3.0	0.17750E+16	0.13920F-03	0.39834E-05	0.1061204E+05
(2S)	8F3F4.0	0.17755E+16	0.16108F-02	0.46107F-04	0.1060905F+05
(2S)	9F3F3.0	0.18467E+16	0.13604E-06	0.40500E-08	0.1020024E+05
(2S)	9F3F4.0	0.18474E+16	0.15742E-05	0.46893E-07	0.1019402E+05
(2S)	10F3F3.0	0.18988E+16	0.76776E-06	0.23502E-07	0.9920059F+04
(2S)	10F3F4.0	0.18985E+16	0.88841E-05	0.27191F-06	0.9921656E+04
(2S)	11F3F3.0	0.19362E+16	0.15870E-05	0.49535E-07	0.9728789E+04
(2S)	11F3F4.0	0.19368E+16	0.18364E-04	0.57339E-06	0.9725598E+04
(2S)	12F3F2.0	0.19645E+16	0.13580E-06	0.43009E-08	0.9588215F+04
(2S)	12F3F3.0	0.19644E+16	0.47529F-05	0.15052E-06	0.9588711F+04
(2S)	12F3F4.0	0.19651E+16	0.54998E-04	0.17424F-05	0.9585477E+04
(2S)	13F3F2.0	0.19866E+16	0.14961E-05	0.47917E-07	0.9481781E+04
(2S)	13F3F3.0	0.19863E+16	0.52364E-04	0.16770E-05	0.9482043F+04
(2S)	13F3F4.0	0.19866E+16	0.60593F-03	0.19405E-04	0.9481781E+04
(2S)	14F3F2.0	0.20040E+16	0.28918F-05	0.93424F-07	0.9399668E+04
(2S)	14F3F3.0	0.20040E+16	0.10121E-03	0.32698E-05	0.9399668E+04
(2S)	14F3F4.0	0.20040E+16	0.11712E-02	0.37836E-04	0.9399668E+04

## INTERACTIONS -- QUADRUPOLE -

0.18012E+16	0.10334E+05
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## 16 - SEQ. NUM.

PR EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(2S)	7P3P2.0	30987.277	3.139	42032.398	218.148	196.131

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	M L VAC
(2S)	7S3S1.0	0.90024E+15	0.33042E+02	0.80724E+00
(2S)	6D3D1.0	0.54943E+14	0.83468E+00	0.12322E-02
(2S)	6D3D2.0	0.44569E+14	0.12520E+02	0.89954E-02
(2S)	6D3D7.0	0.71865E+14	0.70112E+02	0.25727E-01
(2S)	8S3S1.0	0.54965E+15	0.33277E+02	0.29488E+00
(2S)	7D3D1.0	0.88947E+15	0.34652E+00	0.49690E-02
(2S)	7D3D2.0	0.83943E+15	0.51978E+01	0.75368E-01
(2S)	7D3D3.0	0.90378E+15	0.29108E+02	0.47411E+00
(2S)	9S3S1.0	0.11506E+16	0.14298E+01	0.26521E-01
(2S)	8D3D1.0	0.13138E+16	0.58160E-01	0.1231E-02
(2S)	8D3D2.0	0.13161E+16	0.87239E+00	0.18510E-01
(2S)	8D3D3.0	0.13188E+16	0.48854E+01	0.10387E+00
(2S)	10S3S1.0	0.14458E+16	0.36754E+00	0.85669E-02
(2S)	9D3D1.0	0.15354E+16	0.21959E-01	0.54370E-03
(2S)	9D3D2.0	0.15391E+16	0.32938E+00	0.81725E-02
(2S)	9D3D3.0	0.15443E+16	0.18445E+01	0.45923E-01
(2S)	11S3S1.0	0.16270E+16	0.17325E+00	0.45443E-02
(2S)	10D3D1.0	0.16774E+16	0.10886E-01	0.29437E-03
(2S)	10D3D2.0	0.16778E+16	0.16328E+00	0.44165E-02
(2S)	10D3D3.0	0.16798E+16	0.91439E+00	0.24763E-01
(2S)	11D3D1.0	0.17693E+16	0.62241E-02	0.17754E-03
(2S)	11D3D2.0	0.17693E+16	0.93361E-01	0.26670E-02
(2S)	11D3D3.0	0.17698E+16	0.52282E+00	0.14917E-01

## INTERACTIONS -- QUADRUPOLE -

0.34566E+16	0.35022E+04
-------------	-------------

## 17 - SEQ. NUM.

PP EF	DESIG	LEVEL	N EFF	S. LIMIT	RAA***2	S. RAA***2
(2S)	8S3S1.0	33905.348	3.674	42032.398	462.084	100.361

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	M L VAC
(2S)	6P3P0.0	0.40761E+16	0.59142E-01	0.11659E-01
(2S)	6P3P1.0	0.40063E+16	0.17742E+00	0.11459E-01
(2S)	6P3P2.0	0.38409E+16	0.29571E+00	0.10945E-01
(2S)	7P3P0.0	0.59558E+15	0.11092E+02	0.31951E+00
(2S)	7P3P1.0	0.58201E+15	0.33276E+02	0.31222E+00
(2S)	7P3P2.0	0.54966E+15	0.55461E+02	0.29488E+00

## 18 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4F3F4.0	34630.809	3.846	42032.398	291.652	117.139

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	6D3D3.0	0.71818E+15	0.74144E+02	0.11037E+01	0.2622814E+05
(25)	7D3D3.0	0.21747E+15	0.42699E+02	0.14970E+00	0.8651812E+05
(25)	8D3D3.0	0.63247E+15	0.26689E+00	0.27213E-02	0.2978250E+05
(25)	9D3D3.0	0.85799E+15	0.24328E-01	0.33651E-03	0.2195418E+05
(25)	10D3D3.0	0.99350E+15	0.34696E-02	0.55571E-04	0.1895971E+05
(25)	11D3D3.0	0.10835E+16	0.44497E-03	0.77721E-05	0.1738564E+05

## INTERACTIONS -- QUADRUPOLE -

0.12858E+16	0.14756E+06
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## 19 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		4F1F3.0	34736.422	3.877	42032.398	304.613	64.972

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(25)	6D1D2.0	0.84757E+15	0.63599E+02	0.12165E+01	0.2222417E+05
(25)	7D1D2.0	0.50831E+15	0.77710E+00	0.63681E-02	0.3705714E+05
(25)	8D1D2.0	0.71951E+15	0.49489E+00	0.57404E-02	0.2617967E+05
(25)	9D1D2.0	0.86620E+15	0.10175E+00	0.14209E-02	0.2174613E+05



20 - SEQ. NUM.

PR EE	DEF SIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)	7D3D2.0	35762.211	4.182	42032.398	616.068	360.671

INTERACTIONS -- DIPOLE -  
DESIGNATION W

		RAA**2	F	N L VAC
(2S)	6D3P1.0	0.43561E+16	0.62102F+00	0.72685E-01
(2S)	6D3P2.0	0.41909E+16	0.20701E+00	0.13985E-01
(2S)	7P3P1.0	0.93179E+15	0.15593F+02	0.39039E+00
(2S)	7P3P2.0	0.89041E+15	0.51978F+01	0.75368E-01
(2S)	4F3F2.0	0.21839E+15	0.66421E+01	0.23385E-01
(2S)	4F3F3.0	0.21571E+15	0.53136E+02	0.13203F+00
(2S)	5F3F2.0	0.30755E+15	0.31256F+02	0.15497F+00
(2S)	5F3F3.0	0.31208E+15	0.25004E+03	0.12580E+01
(2S)	6F3F2.0	0.57519E+15	0.68651E+00	0.63657E-02
(2S)	6F3F3.0	0.57568E+15	0.54920E+01	0.50970E-01
(2S)	7F3F2.0	0.73761E+15	0.68296E-01	0.81213F-03
(2S)	7F3F3.0	0.73809E+15	0.54637E+00	0.65013F-02
(2S)	8F3F2.0	0.84325E+15	0.13781E-01	0.18735F-03
(2S)	9F3F1.0	0.84372E+15	0.11025F+00	0.14996E-02
(2S)	9F3F2.0	0.91394E+15	0.30885E-02	0.45507E-04
(2S)	9F3F3.0	0.91538E+15	0.24708E-01	0.36462E-03
(2S)	10F3F2.0	0.96689E+15	0.17719E-02	0.27619E-04
(2S)	10F3F3.0	0.96753E+15	0.14175E-01	0.22110E-03
(2S)	11F3F2.0	0.10048E+16	0.11165E-02	0.18085E-04
(2S)	11F3F3.0	0.10047E+16	0.89315E-02	0.14469F-03
(2S)	12F3F2.0	0.10333E+16	0.40431E-03	0.67349F-05
(2S)	12F3F3.0	0.10332E+16	0.32345E-02	0.53873E-04
(2S)	13F3F2.0	0.10553E+16	0.30878E-04	0.52532E-06
(2S)	13F3F3.0	0.10552E+16	0.24702E-03	0.42023E-05
(2S)	14F3F2.0	0.10727E+15	0.83798E-04	0.14491F-05
(2S)	14F3F3.0	0.10727E+16	0.67037E-03	0.11593E-04

INTERACTIONS -- QUADRUPOLE -

0.95437E+15	0.20673E+06
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## 21 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)		603D1.0	35933.824	3.070	47985.000	141.732	127.585

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(20)	6P3F2.0	0.26125E+16	0.70611E+00	0.17843E-01	0.7210238E+04
(20)	6P3D1.0	0.22117E+16	0.59001E+01	0.21038E+00	0.8516605E+04
(20)	6P3D2.0	0.21478E+16	0.19667E+01	0.40859E-01	0.8770168E+04
(20)	6P3P0.0	0.19386E+16	0.31275E+01	0.29323E+00	0.9716598E+04
(20)	6P3P1.0	0.19269E+16	0.23456E+01	0.72866E-01	0.9775473E+04
(20)	6P3P2.0	0.19794E+16	0.15638E+00	0.28428E-02	0.1002278E+05
(20)	7P3F2.0	0.56705E+14	0.29852E+01	0.27289E-02	0.3321871E+06
(20)	7P3D1.0	0.10585E+15	0.18534E+02	0.31624E-01	0.1779532E+06
(20)	7P3D2.0	0.21276E+15	0.61780E+01	0.21190E-01	0.8453594E+05
(20)	7P3P0.0	0.18350E+15	0.82721E+01	0.24472E-01	0.1026496E+06
(20)	7P3P1.0	0.19895E+15	0.62041E+01	0.19899E-01	0.9467975E+05
(20)	7P3P2.0	0.25395E+15	0.41361E+00	0.16934E-02	0.7417000E+05
(20)	4F3F2.0	0.72172E+15	0.70795E+02	0.82371E+00	0.2609954E+05

## INTERACTIONS -- QUADRUPOLE -

0.50218E+14	0.5124E+03
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## 22 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)		601F3.0	36165.312	3.046	47985.000	135.260	52.429

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(20)	6P1D2.0	0.24659E+16	0.75180E+01	0.41841E+00	0.7638895E+04
(20)	6P1F3.0	0.17610E+16	0.64524E+01	0.18319E+00	0.1069631E+05
(20)	7P1D2.0	0.17182E+15	0.26725E+02	0.74031E-01	0.1096266E+06
(20)	7P1F3.0	0.29661E+15	0.11734E+02	0.56107E-01	0.6350671E+05

## 23 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(20)	6D3G5.0	36837.500	3.081	47985.000	144.327	57.125

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(20)	6P3F4.0	0.24639E+16	0.10262E+02	0.49820E+00	0.7645012E+04
(20)	7P3F4.0	0.55490E+14	0.46036E+02	0.41183E-01	0.3394595E+06
(20)	4F3F4.0	0.55150E+15	0.82703E+00	0.73530E-02	0.3415523E+05

## INTERACTIONS -- QUADRUPOLE -

0.17767E+15	0.20041E+05
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## 24 - SEQ. NUM.

PR EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)	8S150.0	37041.000	4.688	42032.398	1215.102	1432.592

INTERACTIONS -- DIPOLE -  
DESIGNATION

		W	RAA***2	F	W L VAC
(25)	6P1P1.0	0.35753E+16	0.25289E+00	0.48588E-02	0.5268500E+04
(25)	7P1P1.0	0.84650E+15	0.58496E+00	0.26609E-02	0.2225226E+05
(25)	8P1P1.0	0.21633E+15	0.41411E+03	0.48142E+00	0.8707156E+05
(25)	9P1P1.0	0.13817E+15	0.97985E+03	0.21825E+01	0.1363326E+06
(25)	10P1P1.0	0.42716E+15	0.29598E+02	0.20383E+00	0.4409680E+05
(25)	11P1P1.0	0.55450E+15	0.65221E+01	0.58303E-01	0.3397027E+05
(25)	12P1P1.0	0.63672E+15	0.16720E+01	0.17163E-01	0.2958378E+05

25 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		7D102.0	37434.957	4.884	42037.398	1220.042	1200.579

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(25)	6P1P1.0	0.36495E+16	0.12901E+00	0.12651E-01	0.5161371E+04
(25)	7P1P1.0	0.92071E+15	0.20770F+00	0.51383E-02	0.2045875E+05
(25)	4F1F3.0	0.50831E+15	0.10879E+01	0.63681E-02	0.3705714E+05
(25)	8P1P1.0	0.29054E+15	0.19035F+03	0.14860E+01	0.6483245E+05
(25)	5F1F3.0	0.29779E+14	0.41089E+03	0.13617E+00	0.6545306E+06
(25)	9P1P1.0	0.63959E+14	0.37198E+03	0.38355E+00	0.2945135E+06
(25)	6F1F3.0	0.27295E+15	0.17854F+03	0.78583F+00	0.6901106E+05
(25)	10P1P1.0	0.35296E+15	0.51337E+01	0.29212E-01	0.5336802E+05
(25)	7F1F3.0	0.42762E+15	0.28433E+02	0.19601E+00	0.4404991E+05
(25)	11P1P1.0	0.48029E+15	0.97421E+00	0.75433E-02	0.3921887F+05
(25)	8F1F3.0	0.53169E+15	0.90298E+01	0.77401E-01	0.3542743E+05
(25)	12P1P1.0	0.56251E+15	0.21846E+00	0.19811E-02	0.3348655E+05
(25)	9F1F3.0	0.59885E+15	0.35606F+01	0.34375E-01	0.3145454E+05

INTERACTIONS -- QUADRUPOLE -

0.13559E+16 0.94011E+06

26 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(20)		6D3F3.0	37504.020	3.235	47985.000	184.073	94.213

INTERACTIONS -- DIPOLE -					
DESIGNATION	W	RAA***2	F	W L VAC	
(20)	6P3F2.0	0.29082E+16	0.15234F+00	0.99993F-02	0.6476949E+04
(20)	6P3F3.0	0.27420F+16	0.16128F+01	0.71293F-01	0.6869742E+04
(20)	6P3F4.0	0.25894E+16	0.15424E+00	0.50080F-02	0.7274344F+04
(20)	6P3D2.0	0.24436E+16	0.47662E+01	0.24286E+00	0.7708621E+04
(20)	6P3D3.0	0.23591E+16	0.59578E+00	0.22659E-01	0.7984546F+04
(20)	7P3F2.0	0.23907E+15	0.16606E+01	0.84599E-02	0.7879225E+05
(20)	7P3F3.0	0.18700E+15	0.17580E+02	0.53000E-01	0.1007299E+06
(20)	7P3F4.0	0.70059E+14	0.16813E+01	0.14770E-02	0.2693652F+06
(20)	7P3D2.0	0.83015E+14	0.37075E+02	0.65465E-01	0.2269061E+06
(20)	7P3D3.0	0.68224E+13	0.46744E+01	0.50972E-03	0.2761000E+07
(20)	4F3F2.0	0.42595E+15	0.19286F+01	0.13244E-01	0.4422256E+05
(20)	4F3F3.0	0.42595E+15	0.20419E+02	0.14021E+00	0.4422256E+05
(20)	4F3F4.0	0.42595E+15	0.19528E+01	0.13409E-01	0.4422256E+05

INTERACTIONS -- QUADRUPOLE -

0.78205E+14 0.96801E+03

27 - SEQ. NUM.

PP	EF	DFSIG	LFVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(20)		60102.0	37837.395	3.288	47995.000	199.345	75.141

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(20)	6P1D2.0	0.27809E+16	0.25561E+01	0.11460E+00	0.6773695E+04
(20)	6P1F3.0	0.20760E+16	0.70172E+00	0.16775E-01	0.9073496E+04
(20)	6P1P1.0	0.17486E+16	0.54751E+01	0.25724E+00	0.1077221E+05
(20)	7P1D2.0	0.14314E+15	0.39919E+02	0.92118E-01	0.1315965E+06
(20)	7P1F3.0	0.18356E+14	0.45170E+01	0.95479E-03	0.1026175E+07
(20)	7P1P1.0	0.12878E+15	0.21972E+02	0.44200E-01	0.1509541E+06

MERCURY ----- 80 --- NEUTRAL

PARENT INFORMATION	NO.	DESIG	LIMIT
	1	(2S)	84184.125
	2	(2D)	119692.000

TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
1	(2S) 6P3P0.0	37645.08	39412.30	44042.98
2	(2S) 6P1P1.0	54068.78		
3	(2S) 7S3S1.0	62350.46		
4	(2S) 7S1S0.0	63928.24		
5	(2D) 6P3P0.0	68886.62	68896.62	68886.62
6	(2S) 7P3P0.0	69516.69	69661.87	71207.50
7	(2S) 7P1P1.0	71295.12		
8	(2S) 6D1D2.0	71333.19		
9	(2S) 6D3D1.0	71336.19	71396.25	71431.31
10	(2D) 6P3D1.0	73119.19	73119.19	73119.19
11	(2S) 8S3S1.0	73961.31		
12	(2S) 8S1S0.0	74404.56		
13	(2S) 8P3P0.0	76447.25	76467.06	76623.50
14	(2S) 8P1P1.0	76863.25		
15	(2D) 6P3F2.0	76945.44	76945.44	76945.44
16	(2S) 7D1D2.0	77064.12		
17	(2S) 7D3D1.0	77084.62	77107.94	77129.56
18	(2S) 5F3F2.0	77237.06	77239.19	77287.00
19	(2S) 5F1F3.0	77241.69		
20	(2S) 9S3S1.0	78216.25		
21	(2S) 9S1S0.0	78404.37		
22	(2D) 6P1D2.0	78676.69		
23	(2D) 6P1P1.0	78813.00		
24	(2S) 9P3P0.0	79375.81	79412.75	79613.31
25	(2S) 8D1D2.0	79660.81		
26	(2S) 8D3D1.0	79678.69	79690.31	79702.62
27	(2S) 6F3F2.0	79743.69	79745.00	79748.31
28	(2S) 6F1F3.0	79745.31		
29	(2S) 9P1P1.0	79964.12		
30	(2S) 10S3S1.0	80268.06		
31	(2S) 10S1S0.0	80365.62		
32	(2S) 10P3P0.0	80902.25	80916.69	81022.87
33	(2S) 9D1D2.0	81057.75		
34	(2S) 9D3D1.0	81071.00	81077.81	81085.12
35	(2S) 7F3F2.0	81103.87	81104.62	81107.12
36	(2S) 7F1F3.0	81106.50		
37	(2S) 10P1P1.0	81153.62		
38	(2S) 11S3S1.0	81416.37		
39	(2S) 11S1S0.0	81473.37		
40	(2S) 11P3P0.0	81800.00	81811.87	81873.81
41	(2S) 10D1D2.0	81895.00		
42	(2S) 10D3D1.0	81904.50	81908.69	81913.62
43	(2S) 8F3F2.0	81923.50	81924.31	81927.81
44	(2S) 8F1F3.0	81925.31		

Table 23. Mercury

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# TERM INFORMATION

TERM NO.	DESIGNATION	ENERGY LEVELS		
45	(2S)11P1P1.0	81942.44		
46	(2S)12S3S1.0	82124.06		
47	(2S)12S1S0.0	82160.81		
48	(2S)12P3P0.0	82379.00	82379.00	82422.62
49	(2S)11D1D2.0	82436.19		
50	(2S)11D3D1.0	82443.00	82445.87	82449.19
51	(2S) 9F3F2.0	82454.87	82455.19	82456.69
52	(2S) 9F1F3.0	82455.31		
53	(2S)12P1P1.0	82464.06		
54	(2S)13S3S1.0	82591.31		
55	(2S)13S1S0.0	82616.19		
56	(2S)13P3P0.0	82765.87	82765.87	82795.00
57	(2S)12D1D2.0	82807.44		
58	(2S)12D3D1.0	82811.19	82812.50	82815.31
59	(2S)10F3F2.0	82818.69	82819.81	82820.12
60	(2S)10F1F3.0	82820.37		
61	(2S)13P1P1.0	82823.94		
62	(2S)14S3S1.0	82915.62		
63	(2S)14S1S0.0	82933.19		
64	(2S)14P3P0.0	83039.31	83039.31	83061.19
65	(2S)13D1D2.0	83069.19		
66	(2S)13D3D1.0	83073.37	83074.19	83076.31
67	(2S)11F3F2.0	83079.00	83080.12	83080.00
68	(2S)11F1F3.0	83080.37		
69	(2S)14P1P1.0	83084.00		
70	(2S)15S3S1.0	83149.87		
71	(2S)15S1S0.0	83162.87		
72	(2S)15P3P0.0	83240.12	83240.12	83258.69
73	(2S)14D1D2.0	83263.87		
74	(2S)14D3D1.0	83266.87	83267.87	83269.62
75	(2S)12F3F2.0	83271.00	83271.87	83272.50
76	(2S)12F1F3.0	83273.37		
77	(2S)15P1P1.0	83280.50		
78	(2S)16S3S1.0	83325.00		
79	(2S)16S1S0.0	83334.81		
80	(2S)16P3P0.0	83396.69	83396.69	83407.19
81	(2S)15D1D2.0	83411.87		
82	(2S)15D3D1.0	83413.87	83414.81	83415.69

1 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		6P3P1.0	39412.301	1.608	84184.125	10.118	6.299

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	L VAC
(25)	75351.0	0.43207E+16	0.13053E+01	0.95101E-01	0.4359547E+04
(25)	60301.0	0.60133E+16	0.80047E+00	0.77601E-01	0.3132450E+04
(25)	60302.0	0.60247E+16	0.24014E+01	0.23324E+00	0.3126568E+04
(25)	85351.0	0.65078E+16	0.13624E+00	0.14293E-01	0.2894439E+04
(25)	70301.0	0.70961E+16	0.18927E+00	0.21652E-01	0.2654469E+04
(25)	70302.0	0.71005E+16	0.50780E+00	0.64996E-01	0.2652827E+04
(25)	95351.0	0.73093E+16	0.50304E-01	0.59276E-02	0.2577057E+04
(25)	80301.0	0.75848E+16	0.76509E-01	0.93554E-02	0.2483461E+04
(25)	80302.0	0.75870E+16	0.22953E+00	0.28074E-01	0.2482744E+04
(25)	105351.0	0.76958E+16	0.26035E-01	0.32300E-02	0.2447635E+04
(25)	90301.0	0.78470E+16	0.39120E-01	0.49489E-02	0.2400459E+04
(25)	90302.0	0.78483E+16	0.11736E+00	0.14849E-01	0.2400066E+04
(25)	115351.0	0.79121E+16	0.15711E-01	0.20041E-02	0.2380721E+04
(25)	100301.0	0.80040E+16	0.22869E-01	0.29510E-02	0.2353373E+04
(25)	100302.0	0.80048E+16	0.68607E-01	0.88537E-02	0.2353141E+04
(25)	125351.0	0.80454E+16	0.10367E-01	0.13446E-02	0.2341275E+04
(25)	110301.0	0.81055E+16	0.14589E-01	0.19064E-02	0.2323922E+04
(25)	110302.0	0.81060E+16	0.43768E-01	0.57196E-02	0.2323767E+04
(25)	135351.0	0.81334E+16	0.72532E-02	0.95106E-03	0.2315940E+04
(25)	120301.0	0.81748E+16	0.98999E-02	0.13047E-02	0.2304207E+04
(25)	120302.0	0.81751E+16	0.29699E-01	0.39142E-02	0.2304137E+04
(25)	145351.0	0.81945E+16	0.53011E-02	0.70032E-03	0.2298675E+04
(25)	130301.0	0.82242E+16	0.70269E-02	0.93168E-03	0.2290370E+04
(25)	130302.0	0.82244E+16	0.21081E-01	0.27951E-02	0.2290327E+04
(25)	155351.0	0.82386E+16	0.40073E-02	0.53224E-03	0.2286364E+04
(25)	140301.0	0.82607E+16	0.51785E-02	0.68964E-03	0.2280264E+04
(25)	140302.0	0.82609E+16	0.15535E-01	0.20690E-02	0.2280212E+04
(25)	165351.0	0.82716E+16	0.31031E-02	0.41380E-03	0.2277245E+04
(25)	150301.0	0.82884E+16	0.39738E-02	0.52297E-03	0.2272646E+04
(25)	150302.0	0.82885E+16	0.11741E-01	0.15669E-02	0.2272597E+04

INTERACTIONS -- QUADRUPOLE -

0.82851E+16 0.31270E+01



EE DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(2S) 6P3P2.0	44042.977	1.608	84184.125	10.118	6.299

INTERACTIONS -- DIPOLE --					
DESIGNATION	M	RAA**2	F	W L VAC	
(2S) 753S1.0	0.34485E+16	0.13653E+01	0.75904E-01	0.5462246E+04	
(2S) 603D1.0	0.51411E+16	0.32019E-01	0.26538E-02	0.3663915E+04	
(2S) 603D2.0	0.51524E+16	0.48028E+00	0.39894E-01	0.3655869E+04	
(2S) 603D3.0	0.51590E+16	0.26896E+01	0.22370E+00	0.3651189E+04	
(2S) 853S1.0	0.56356E+16	0.13624E+00	0.12378E-01	0.3342432E+04	
(2S) 703D1.0	0.62239E+16	0.75708E-02	0.75964E-03	0.3026483E+04	
(2S) 703D2.0	0.62283E+16	0.11356E+00	0.11402E-01	0.3024349E+04	
(2S) 703D3.0	0.62324E+16	0.63594E+00	0.63896E-01	0.3022373E+04	
(2S) 953S1.0	0.64371E+16	0.50305E-01	0.52203E-02	0.2926263E+04	
(2S) 803D1.0	0.67125E+16	0.30604E-02	0.33118E-03	0.2806174E+04	
(2S) 803D2.0	0.67147E+16	0.45905E-01	0.49693E-02	0.2805259E+04	
(2S) 803D3.0	0.67170E+16	0.25707E+00	0.27838E-01	0.2604290E+04	
(2S) 1053S1.0	0.68235E+16	0.26035E-01	0.28640E-02	0.2760518E+04	
(2S) 903D1.0	0.69748E+16	0.15648E-02	0.17595E-03	0.2700657E+04	
(2S) 903D2.0	0.69761E+16	0.23472E-01	0.26398E-02	0.2700160E+04	
(2S) 903D3.0	0.69774E+16	0.13144E+00	0.14786E-01	0.2699627E+04	
(2S) 1153S1.0	0.70398E+16	0.15712E-01	0.17832E-02	0.2675700E+04	
(2S) 1003D1.0	0.71318E+16	0.91478E-03	0.10518E-03	0.2641204E+04	
(2S) 1003D2.0	0.71326E+16	0.13721E-01	0.15778E-02	0.2640912E+04	
(2S) 1003D3.0	0.71335E+16	0.76841E-01	0.88369E-02	0.2640567E+04	
(2S) 1253S1.0	0.71731E+16	0.10367E-01	0.11989E-02	0.2625975E+04	
(2S) 1103D1.0	0.72332E+16	0.58358E-03	0.68051E-04	0.2604165E+04	
(2S) 1103D2.0	0.72338E+16	0.87536E-02	0.10208E-02	0.2603970E+04	
(2S) 1103D3.0	0.72344E+16	0.49020E-01	0.57172E-02	0.2603745E+04	
(2S) 1353S1.0	0.72612E+16	0.72533E-02	0.84908E-03	0.2594146E+04	
(2S) 1203D1.0	0.73026E+16	0.39600E-03	0.46620E-04	0.2579433E+04	
(2S) 1203D2.0	0.73028E+16	0.59399E-02	0.69932E-03	0.2579345E+04	
(2S) 1203D3.0	0.73034E+16	0.33264E-01	0.39165E-02	0.2579158E+04	
(2S) 1453S1.0	0.73222E+16	0.53012E-02	0.62578E-03	0.2572503E+04	
(2S) 1303D1.0	0.73520E+16	0.28108E-03	0.33315E-04	0.2562105E+04	
(2S) 1303D2.0	0.73521E+16	0.42162E-02	0.49973E-03	0.2562052E+04	
(2S) 1303D3.0	0.73525E+16	0.23611E-01	0.27986E-02	0.2561913E+04	
(2S) 1553S1.0	0.73644E+16	0.40074E-02	0.47590E-03	0.2557094E+04	
(2S) 1403D1.0	0.73884E+16	0.20714E-03	0.24673E-04	0.2549466E+04	
(2S) 1403D2.0	0.73886E+16	0.31071E-02	0.37010E-03	0.2549401E+04	
(2S) 1403D3.0	0.73889E+16	0.17400E-01	0.20727E-02	0.2549267E+04	
(2S) 1653S1.0	0.73994E+16	0.31032E-02	0.37017E-03	0.2545694E+04	
(2S) 1503D1.0	0.74161E+16	0.15656E-03	0.18718E-04	0.2539947E+04	
(2S) 1503D2.0	0.74163E+16	0.23483E-02	0.28077E-03	0.2539886E+04	
(2S) 1503D3.0	0.74164E+16	0.13151E-01	0.15723E-02	0.2539830E+04	

INTERACTIONS -- QUADRUPOLE --

0.74129E+16	0.83974E+02
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## 3 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA***2
(25)		6P1P1.0	54068.781	1.908	84184.125	24.038	20.750

## INTERACTIONS -- DIPOLE -

DESIGNATION	W	RAA***2	F	W L VAC
(25) 75150.0	0.18572E+16	0.49476E+01	0.14813E+00	0.1014254E+05
(25) 60102.0	0.32520E+16	0.12667E+02	0.67458E+00	0.5792262E+04
(25) 85150.0	0.38306E+16	0.13511E+00	0.83439E-02	0.4917437E+04
(25) 70102.0	0.43315E+16	0.16361E+01	0.11425E+00	0.4348703E+04
(25) 95150.0	0.45840E+16	0.35333E-01	0.25111E-02	0.4109207E+04
(25) 80102.0	0.48206E+16	0.52233E+00	0.40593E-01	0.3907466E+04
(25) 105150.0	0.49534E+16	0.15137E-01	0.12088E-02	0.3802738E+04
(25) 90102.0	0.50838E+16	0.23556E+00	0.19306E-01	0.3705217E+04
(25) 115150.0	0.51621E+16	0.80661E-02	0.67126E-03	0.3649023E+04
(25) 100102.0	0.52415E+16	0.12741E+00	0.10767E-01	0.3593733E+04
(25) 125150.0	0.52916E+16	0.48920E-02	0.41732E-03	0.3559728E+04
(25) 110102.0	0.53434E+16	0.77244E-01	0.66541E-02	0.3525172E+04
(25) 135150.0	0.53773E+16	0.32139E-02	0.27861E-03	0.3502945E+04
(25) 120102.0	0.54134E+16	0.51884E-01	0.45280E-02	0.3479634E+04
(25) 145150.0	0.54370E+16	0.22257E-02	0.19509E-03	0.3464774E+04
(25) 130102.0	0.54627E+16	0.34554E-01	0.30430E-02	0.3448228E+04
(25) 155150.0	0.54803E+16	0.16074E-02	0.14201E-03	0.3437124E+04
(25) 140102.0	0.54993E+16	0.24814E-01	0.21999E-02	0.3425233E+04
(25) 165150.0	0.55127E+16	0.12072E-02	0.10729E-03	0.3416931E+04
(25) 150102.0	0.55272E+16	0.18577E-01	0.16554E-02	0.3407957E+04

## INTERACTIONS -- QUADRUPOLE -

0.55025E+16	0.55721E+02
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4 - SEQ. NUM.

PR EE DESIG (25) 75351.0	LEVEL 62350.457	N EFF 2.241	S <sub>0</sub> LIMIT 84184.125	RAA**2 65.590	S <sub>0</sub> RAA***2 56.645
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INTERACTIONS -- DIPOLE --  
DESIGNATION W

		RAA**2	F	W L VAC
(25) 6P3P0.0	0.46536E+16	0.45511E+00	0.10243E+00	0.4047701E+04
(25) 6P3P1.0	0.43207E+16	0.13653E+01	0.95101E-01	0.4359547E+04
(25) 6P3P2.0	0.34485E+16	0.22755E+01	0.75904E-01	0.5462246E+04
(25) 7P3P0.0	0.13499E+16	0.55960E+01	0.12178E+00	0.1395434E+05
(25) 7P3P1.0	0.13772E+16	0.16788E+02	0.37273E+00	0.1367723E+05
(25) 7P3P2.0	0.16684E+16	0.27980E+02	0.75256E+00	0.1129045E+05
(25) 8P3P0.0	0.26553E+16	0.16253E+00	0.69576E-02	0.7093809E+04
(25) 8P3P1.0	0.26591E+16	0.48759E+00	0.20902E-01	0.7083855E+04
(25) 8P3P2.0	0.27262E+16	0.81267E+00	0.35717E-01	0.6909395E+04
(25) 9P3P0.0	0.32070E+16	0.44085E-01	0.22792E-02	0.5873590E+04
(25) 9P3P1.0	0.32139E+16	0.13225E+00	0.68524E-02	0.5860875E+04
(25) 9P3P2.0	0.32517E+16	0.22042E+00	0.11555E-01	0.5792781E+04
(25) 10P3P0.0	0.34945E+16	0.16281E-01	0.91722E-03	0.5390312E+04
(25) 10P3P1.0	0.34972E+16	0.48842E-01	0.27537E-02	0.5366121E+04
(25) 10P3P2.0	0.35172E+16	0.81405E-01	0.46159E-02	0.5355492E+04
(25) 11P3P0.0	0.36636E+16	0.82296E-02	0.48606E-03	0.5141508E+04
(25) 11P3P1.0	0.36659E+16	0.24688E-01	0.14590E-02	0.5138371E+04
(25) 11P3P2.0	0.36775E+16	0.41148E-01	0.24395E-02	0.5122070E+04
(25) 12P3P0.0	0.37727E+16	0.47300E-02	0.28768E-03	0.4992671E+04
(25) 12P3P1.0	0.37727E+16	0.14190E-01	0.86303E-03	0.4992871E+04
(25) 12P3P2.0	0.37809E+16	0.23650E-01	0.14415E-02	0.4982020E+04
(25) 13P3P0.0	0.38456E+16	0.28789E-02	0.17848E-03	0.4898258E+04
(25) 13P3P1.0	0.38456E+16	0.86365E-02	0.53543E-03	0.4898258E+04
(25) 13P3P2.0	0.38510E+16	0.14394E-01	0.89367E-03	0.4891277E+04
(25) 14P3P0.0	0.38971E+16	0.18468E-02	0.11603E-03	0.4833520E+04
(25) 14P3P1.0	0.38971E+16	0.55403E-02	0.34808E-03	0.4833520E+04
(25) 14P3P2.0	0.39012E+16	0.92340E-02	0.58075E-03	0.4828414E+04
(25) 15P3P0.0	0.39349E+16	0.12753E-02	0.80899E-04	0.4787055E+04
(25) 15P3P1.0	0.39349E+16	0.38258E-02	0.24269E-03	0.4787055E+04
(25) 15P3P2.0	0.39384E+16	0.63764E-02	0.40485E-03	0.4782805E+04
(25) 16P3P0.0	0.39644E+16	0.10296E-02	0.65800E-04	0.4751441E+04
(25) 16P3P1.0	0.39644E+16	0.30886E-02	0.19740E-03	0.4751441E+04
(25) 16P3P2.0	0.39664E+16	0.51478E-02	0.32916E-03	0.4749074E+04

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		603D1.0	71336.187	2.929	84184.125	111.235	106.398

INTERACTIONS -- DIPOLE -  
DESIGNATION

			RAA**2	F	W L VAC
(25)	6P3P0.0	0.63462E+16	0.10673E+01	0.32759E+00	0.2968142E+04
(25)	6P3P1.0	0.60133E+16	0.80047E+00	0.77601E-01	0.3132450E+04
(25)	6P3P2.0	0.51411E+16	0.53366E-01	0.26538E-02	0.3663915E+04
(25)	7P3P0.0	0.34273E+15	0.20666E+02	0.34255E+00	0.5496015E+05
(25)	7P3P1.0	0.31538E+15	0.15499E+02	0.78804E-01	0.5972600E+05
(25)	7P3P2.0	0.24240E+14	0.10333E+01	0.24228E-03	0.7770762E+06
(25)	8P3P0.0	0.96275E+15	0.97245E+00	0.15093E-01	0.1956540E+05
(25)	8P3P1.0	0.96648E+15	0.72933E+00	0.11364E-01	0.1948985E+05
(25)	8P3P2.0	0.10336E+16	0.48623E-01	0.81022E-03	0.1822386E+05
(25)	9P3F2.0	0.11115E+16	0.54375E+02	0.97437E+00	0.1694664E+05
(25)	9P3P0.0	0.15144E+16	0.78193E-01	0.19090E-02	0.1243839E+05
(25)	9P3P1.0	0.15213E+16	0.58644E-01	0.14383E-02	0.1238150E+05
(25)	9P3P2.0	0.15591E+16	0.39096E-02	0.96270E-04	0.1208149E+05
(25)	6F3F2.0	0.15837E+16	0.67530E+01	0.17241E+00	0.1189414E+05
(25)	10P3P0.0	0.18019E+16	0.22685E-01	0.65898E-03	0.1045362E+05
(25)	10P3P1.0	0.18046E+16	0.17013E-01	0.49498E-03	0.1043787E+05
(25)	10P3P2.0	0.18246E+16	0.11342E-02	0.33365E-04	0.1032345E+05
(25)	7F3F2.0	0.18399E+16	0.20882E+01	0.61940E-01	0.1023784E+05
(25)	11P3P0.0	0.19710E+16	0.91349E-02	0.29027E-03	0.9556746E+04
(25)	11P3P1.0	0.19733E+16	0.68511E-02	0.21795E-03	0.9545910E+04
(25)	11P3P2.0	0.19849E+16	0.45675E-03	0.14616E-04	0.9489801E+04
(25)	8F3F2.0	0.19943E+16	0.93668E+00	0.30115E-01	0.9445266E+04
(25)	12P3P0.0	0.20801E+16	0.45846E-02	0.15374E-03	0.9055660E+04
(25)	12P3P1.0	0.20801E+16	0.34384E-02	0.11530E-03	0.9055660E+04
(25)	12P3P2.0	0.20883E+16	0.22923E-03	0.77173E-05	0.9020027E+04
(25)	9F3F2.0	0.20944E+16	0.50423E+00	0.17025E-01	0.8993867E+04
(25)	13P3P0.0	0.21530E+16	0.26947E-02	0.93529E-04	0.8749145E+04
(25)	13P3P1.0	0.21530E+16	0.20210E-02	0.70146E-04	0.8749145E+04
(25)	13P3P2.0	0.21584E+16	0.13473E-03	0.46884E-05	0.8726906E+04
(25)	10F3F2.0	0.21629E+16	0.30759E+00	0.10725E-01	0.8708902E+04
(25)	14P3P0.0	0.22045E+16	0.17455E-02	0.62033E-04	0.8544723E+04
(25)	14P3P1.0	0.22045E+16	0.13091E-02	0.46524E-04	0.8544723E+04
(25)	14P3P2.0	0.22086E+16	0.87274E-04	0.31074E-05	0.8528781E+04
(25)	11F3F2.0	0.22119E+16	0.20341E+00	0.72534E-02	0.8515844E+04
(25)	15P3P0.0	0.22423E+16	0.11825E-02	0.42747E-04	0.8400578E+04
(25)	15P3P1.0	0.22423E+16	0.88688E-03	0.32060E-04	0.8400578E+04
(25)	15P3P2.0	0.22458E+16	0.59126E-04	0.21407E-05	0.8387600E+04
(25)	12F3F2.0	0.22481E+16	0.14177E+00	0.51381E-02	0.8378648E+04
(25)	16P3P0.0	0.22718E+16	0.76761E-03	0.28113E-04	0.8291527E+04
(25)	16P3P1.0	0.22718E+16	0.57570E-03	0.21085E-04	0.8291527E+04
(25)	16P3P2.0	0.22738E+16	0.38381E-04	0.14069E-05	0.8284316E+04

## INTERACTIONS -- QUADRUPOLE -

0.22752E+16	0.10100E+05
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6 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		6D3D3.0	71431.312	2.929	84184.125	111.235	106.398

INTERACTIONS -- DIPOLE --

DESIGNATION	M	RAA**2	F	W L VAC
(2S) 6P3P2.0	0.51590E+16	0.19211E+01	0.22370E+00	0.3651189E+04
(2S) 7P3P2.0	0.42158E+14	0.37198E+02	0.35395E-01	0.4468026E+06
(2S) 8P3P2.0	0.10157E+16	0.17504E+01	0.28662E-01	0.1854535E+05
(2S) 5F3F2.0	0.10936E+16	0.12330E+00	0.21738E-02	0.1722430E+05
(2S) 5F3F3.0	0.10940E+16	0.43155E+01	0.76111E-01	0.1721800E+05
(2S) 5F3F4.0	0.11030E+16	0.49937E+02	0.83798E+00	0.1707741E+05
(2S) 9P3P2.0	0.15412E+16	0.14075E+00	0.34970E-02	0.1222195E+05
(2S) 6F3F2.0	0.15658E+16	0.15313E-01	0.38654E-03	0.1203025E+05
(2S) 6F3F3.0	0.15660E+16	0.53595E+00	0.13531E-01	0.1202836E+05
(2S) 6F3F4.0	0.15666E+16	0.62018E+01	0.15663E+00	0.1202356E+05
(2S) 10P3P2.0	0.18067E+16	0.40833E-01	0.11893E-02	0.1042583E+05
(2S) 7F3F2.0	0.18220E+16	0.47352E-02	0.13909E-03	0.1033852E+05
(2S) 7F3F3.0	0.18221E+16	0.16573E+00	0.48684E-02	0.1033772E+05
(2S) 7F3F4.0	0.18226E+16	0.19178E+01	0.56349E-01	0.1033505E+05
(2S) 11P3P2.0	0.19670E+16	0.16443E-01	0.52142E-03	0.9576250E+04
(2S) 8F3F2.0	0.19764E+16	0.21240E-02	0.67675E-04	0.9530898E+04
(2S) 8F3F3.0	0.19765E+16	0.74339E-01	0.23688E-02	0.9530160E+04
(2S) 8F3F4.0	0.19772E+16	0.86022E+00	0.27419E-01	0.9526984E+04
(2S) 12P3P2.0	0.20704E+16	0.82522E-02	0.27544E-03	0.9098094E+04
(2S) 9F3F2.0	0.20765E+16	0.11434E-02	0.38275E-04	0.9071477E+04
(2S) 9F3F3.0	0.20765E+16	0.40018E-01	0.13397E-02	0.9071219E+04
(2S) 9F3F4.0	0.20768E+16	0.46307E+00	0.15504E-01	0.9069984E+04
(2S) 13P3P2.0	0.21405E+16	0.48504E-02	0.16738E-03	0.8799957E+04
(2S) 10F3F2.0	0.21450E+16	0.69745E-03	0.24119E-04	0.8781652E+04
(2S) 10F3F3.0	0.21452E+16	0.24411E-01	0.84424E-03	0.8780785E+04
(2S) 10F3F4.0	0.21453E+16	0.28248E+00	0.97694E-02	0.8780543E+04
(2S) 14P3P2.0	0.21907E+16	0.31419E-02	0.11096E-03	0.8598543E+04
(2S) 11F3F2.0	0.21940E+16	0.46124E-03	0.16314E-04	0.8585395E+04
(2S) 11F3F3.0	0.21942E+16	0.16143E-01	0.57105E-03	0.8584562E+04
(2S) 11F3F4.0	0.21942E+16	0.18680E+00	0.66079E-02	0.8584656E+04
(2S) 15P3P2.0	0.22279E+16	0.21285E-02	0.76449E-04	0.8454961E+04
(2S) 12F3F2.0	0.22302E+16	0.32147E-03	0.11558E-04	0.8446168E+04
(2S) 12F3F3.0	0.22303E+16	0.11251E-01	0.40456E-03	0.8445543E+04
(2S) 12F3F4.0	0.22305E+16	0.13020E+00	0.46816E-02	0.8445098E+04
(2S) 16P3P2.0	0.22558E+16	0.13817E-02	0.50248E-04	0.6350117E+04

INTERACTIONS -- QUADRUPOLE --

0.22573E+16	0.18937E+05
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7 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(25)		BS351.0	73961.312	3.275	84104.125	293.121	297.846

INTERACTIONS -- DIPOLE --  
DESIGNATION

		M	RAA**2	F	M L VAC
(25)	6P3P0.0	0.68407E+16	0.45413E-01	0.15025E-01	0.2753589E+04
(25)	6P3P1.0	0.65078E+16	0.13624E+00	0.14293E-01	0.2894439E+04
(25)	6P3P2.0	0.56356E+16	0.22706E+00	0.12378E-01	0.3342432E+04
(25)	7P3P0.0	0.83721E+15	0.90352E+01	0.36584E+00	0.2249909E+05
(25)	7P3P1.0	0.80986E+15	0.27105E+02	0.35389E+00	0.2325886E+05
(25)	7P3P2.0	0.51872E+15	0.45176E+02	0.22667E+00	0.3631329E+05
(25)	8P3P0.0	0.46326E+15	0.23103E+02	0.17441E+00	0.4022627E+05
(25)	8P3P1.0	0.47200E+15	0.69308E+02	0.52738E+00	0.3900821E+05
(25)	8P3P2.0	0.53914E+15	0.11551E+03	0.10040E+01	0.3493831E+05
(25)	9P3P0.0	0.10199E+16	0.66537E+00	0.10940E-01	0.1846893E+05
(25)	9P3P1.0	0.10269E+16	0.19961E+01	0.33044E-01	0.1834379E+05
(25)	9P3P2.0	0.10646E+16	0.33268E+01	0.57100E-01	0.1769285E+05
(25)	10P3P0.0	0.13074E+16	0.13627E+00	0.28722E-02	0.1440727E+05
(25)	10P3P1.0	0.13101E+16	0.40879E+00	0.86343E-02	0.1437737E+05
(25)	10P3P2.0	0.13302E+16	0.68133E+00	0.14610E-01	0.1416117E+05
(25)	11P3P0.0	0.14765E+16	0.51842E-01	0.12340E-02	0.1275723E+05
(25)	11P3P1.0	0.14788E+16	0.15552E+00	0.37076E-02	0.1273794E+05
(25)	11P3P2.0	0.14904E+16	0.25921E+00	0.62282E-02	0.1263823E+05
(25)	12P3P0.0	0.15856E+16	0.25399E-01	0.64924E-03	0.1187975E+05
(25)	12P3P1.0	0.15856E+16	0.76194E-01	0.19477E-02	0.1187975E+05
(25)	12P3P2.0	0.15938E+16	0.12699E+00	0.32630E-02	0.1181850E+05
(25)	13P3P0.0	0.16585E+16	0.13993E-01	0.37414E-03	0.1135775E+05
(25)	13P3P1.0	0.16585E+16	0.41979E-01	0.11224E-02	0.1135775E+05
(25)	13P3P2.0	0.16640E+16	0.69966E-01	0.18769E-02	0.1132030E+05
(25)	14P3P0.0	0.17100E+16	0.83894E-02	0.23127E-03	0.1101564E+05
(25)	14P3P1.0	0.17100E+16	0.25168E-01	0.69381E-03	0.1101564E+05
(25)	14P3P2.0	0.17141E+16	0.41947E-01	0.11591E-02	0.1098916E+05
(25)	15P3P0.0	0.17478E+16	0.55162E-02	0.15543E-03	0.1077724E+05
(25)	15P3P1.0	0.17478E+16	0.16548E-01	0.46628E-03	0.1077724E+05
(25)	15P3P2.0	0.17513E+16	0.27581E-01	0.77871E-03	0.1075572E+05
(25)	16P3P0.0	0.17773E+16	0.42910E-02	0.12295E-03	0.1059841E+05
(25)	16P3P1.0	0.17773E+16	0.12873E-01	0.36884E-03	0.1059841E+05
(25)	16P3P2.0	0.17793E+16	0.21455E-01	0.61542E-03	0.1058663E+05

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OF POOR QUALITY

## 8 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(2S)		851S0.0	74404.562	3.349	84184.125	320.029	343.688

INTERACTIONS -- DIPOLE --  
DESIGNATION

		W	RAA**2	F	W L VAC
(2S)	6P1P1.0	0.38306E+16	0.40534E+00	0.83439E-02	0.4917437E+04
(2S)	7P1P1.0	0.58571E+15	0.94641E+02	0.29788E+00	0.3216016E+05
(2S)	8P1P1.0	0.46313E+15	0.23365E+03	0.17445E+01	0.4067211E+05
(2S)	9P1P1.0	0.10472E+16	0.10744E+02	0.18140E+00	0.1798702E+05
(2S)	10P1P1.0	0.12713E+16	0.23936E+01	0.49056E-01	0.1481687E+05
(2S)	11P1P1.0	0.14199E+16	0.88285E+00	0.20209E-01	0.1326634E+05
(2S)	12P1P1.0	0.15181E+16	0.42792E+00	0.10473E-01	0.1240771E+05
(2S)	13P1P1.0	0.15859E+16	0.24261E+00	0.62028E-02	0.1187736E+05
(2S)	14P1P1.0	0.16349E+16	0.16241E+00	0.42807E-02	0.1152148E+05
(2S)	15P1P1.0	0.16719E+16	0.13866E+00	0.37375E-02	0.1126641E+05

## 9 - SEQ. NUM.

PR	EE	DESIG	LEVEL	N EFF	S <sub>0</sub> LIMIT	RAA**2	S <sub>0</sub> RAA**2
(2S)		701D2.0	77064.125	3.925	84184.125	462.325	453.835

INTERACTIONS -- DIPOLE --  
DESIGNATION

		W	RAA**2	F	W L VAC
(2S)	6P1P1.0	0.43315E+16	0.98164E+00	0.11425E+00	0.4348703E+04
(2S)	7P1P1.0	0.10867E+16	0.20339E+02	0.59387E+00	0.1733402E+05
(2S)	8P1P1.0	0.37838E+14	0.16119E+03	0.16388E+00	0.4978220E+06
(2S)	5F1F3.0	0.33447E+14	0.15118E+03	0.81517E-01	0.5631819E+06
(2S)	6F1F3.0	0.50504E+15	0.95116E+02	0.77444E+00	0.3729691E+05
(2S)	9P1P1.0	0.54626E+15	0.15709E-01	0.13835E-03	0.3448276E+05
(2S)	7F1F3.0	0.76144E+15	0.14835E+02	0.18211E+00	0.2473793E+05
(2S)	10P1P1.0	0.77032E+15	0.10191E+00	0.12656E-02	0.2445286E+05
(2S)	8F1F3.0	0.91568E+15	0.50000E+01	0.73810E-01	0.2057110E+05
(2S)	11P1P1.0	0.91890E+15	0.47607E-01	0.70525E-03	0.2049889E+05
(2S)	9F1F3.0	0.10155E+16	0.23241E+01	0.38049E-01	0.1854879E+05
(2S)	12P1P1.0	0.10172E+16	0.24174E-01	0.39640E-03	0.1851873E+05
(2S)	10F1F3.0	0.10843E+16	0.12997E+01	0.22719E-01	0.1737242E+05
(2S)	13P1P1.0	0.10849E+16	0.13794E-01	0.24126E-03	0.1736168E+05
(2S)	11F1F3.0	0.11333E+16	0.80913E+00	0.14783E-01	0.1662165E+05
(2S)	14P1P1.0	0.11339E+16	0.73365E-02	0.13412E-03	0.1661164E+05
(2S)	12F1F3.0	0.11696E+16	0.54932E+00	0.10358E-01	0.1610500E+05
(2S)	15P1P1.0	0.11709E+16	0.21747E-02	0.41052E-04	0.1608654E+05

PR	EE	DESIG	LEVEL	N EFF	S. LIMIT	RAA**2	S. RAA**2
(2S)		70303.0	77129.562	3.938	84184.125	469.697	463.095

INTERACTIONS -- DIPOLE -  
DESIGNATION W

			RAA**2	F	W L VAC
(2S)	6P3P2.0	0.62324E+16	0.45424E+00	0.63896E-01	0.3022373E+04
(2S)	7P3P2.0	0.11155E+16	0.11563E+02	0.29111E+00	0.1688601E+05
(2S)	8P3P2.0	0.57651E+14	0.16358E+03	0.21285E+00	0.3267306E+06
(2S)	5F3F2.0	0.20249E+14	0.34335E+00	0.11209E-03	0.9302325E+06
(2S)	5F3F3.0	0.20650E+14	0.12017E+02	0.40005E-02	0.9122006E+06
(2S)	5F3F4.0	0.29656E+14	0.13906E+03	0.66482E-01	0.6351727E+06
(2S)	9P3P2.0	0.46785E+15	0.83595E+01	0.63051E-01	0.4026170E+05
(2S)	6F3F2.0	0.49241E+15	0.22925E+00	0.18198E-02	0.3825371E+05
(2S)	6F3F3.0	0.49266E+15	0.80235E+01	0.63725E-01	0.3823452E+05
(2S)	6F3F4.0	0.49328E+15	0.92844E+02	0.73833E+00	0.3818616E+05
(2S)	10P3P2.0	0.73336E+15	0.96746E+00	0.11438E-01	0.2568507E+05
(2S)	7F3F2.0	0.74862E+15	0.34372E-01	0.41483E-03	0.2516158E+05
(2S)	7F3F3.0	0.74876E+15	0.12030E+01	0.14521E-01	0.2515664E+05
(2S)	7F3F4.0	0.74923E+15	0.13920E+02	0.16814E+00	0.2514102E+05
(2S)	11P3P2.0	0.89365E+15	0.28577E+00	0.41171E-02	0.2107814E+05
(2S)	8F3F2.0	0.90301E+15	0.11387E-01	0.16578E-03	0.2085966E+05
(2S)	8F3F3.0	0.90316E+15	0.39856E+00	0.58031E-02	0.2085614E+05
(2S)	8F3F4.0	0.90382E+15	0.46119E+01	0.67199E-01	0.2084093E+05
(2S)	12P3P2.0	0.99703E+15	0.12493E+00	0.20061E-02	0.1889265E+05
(2S)	9F3F2.0	0.10031E+16	0.52483E-02	0.84872E-04	0.1877824E+05
(2S)	9F3F3.0	0.10032E+16	0.18369E+00	0.29706E-02	0.1877714E+05
(2S)	9F3F4.0	0.10034E+16	0.21255E+01	0.34385E-01	0.1677185E+05
(2S)	13P3P2.0	0.10672E+16	0.66024E-01	0.11703E-02	0.1765089E+05
(2S)	10F3F2.0	0.10716E+16	0.29025E-02	0.50144E-04	0.1757739E+05
(2S)	10F3F3.0	0.10718E+16	0.10159E+00	0.17554E-02	0.1757392E+05
(2S)	10F3F4.0	0.10719E+16	0.11755E+01	0.20313E-01	0.1757295E+05
(2S)	14P3P2.0	0.11173E+16	0.42048E-01	0.75739E-03	0.1685879E+05
(2S)	11F3F2.0	0.11207E+16	0.17974E-02	0.32473E-04	0.1680831E+05
(2S)	11F3F3.0	0.11209E+16	0.62907E-01	0.11367E-02	0.1680513E+05
(2S)	11F3F4.0	0.11209E+16	0.72793E+00	0.13154E-01	0.1680548E+05
(2S)	15P3P2.0	0.11545E+16	0.27835E-01	0.51808E-03	0.1631554E+05
(2S)	12F3F2.0	0.11568E+16	0.11984E-02	0.22350E-04	0.1628283E+05
(2S)	12F3F3.0	0.11570E+16	0.41944E-01	0.78236E-03	0.1628051E+05
(2S)	12F3F4.0	0.11571E+16	0.48535E+00	0.90540E-02	0.1627886E+05
(2S)	16P3P2.0	0.11825E+16	0.18450E-01	0.35173E-03	0.1592959E+05

INTERACTIONS -- QUADRUPOLE -

0.11837E+16	0.29930E+06
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